

WALKSMART / BIKESMART VERMONT!

Critical Content, Concepts and Skills for Pedestrian & Bicycle Safety



Developed by
The Center for Health & Learning

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SafeRoutes
Vermont Safe Routes to School



WALKSMART / BIKESMART VERMONT!

Critical Content, Concepts and Skills for Pedestrian & Bicycle Safety

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WALKSMART / BIKESMART VERMONT!



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INTRODUCTION

Welcome to WalkSmart / BikeSmart Vermont! Thank you for helping children and youth in Vermont obtain important knowledge and skills to improve their health and engage in safe walking and bicycling practices. This curriculum contains essential concepts and skills related to pedestrian and bicycle safety delivered through hands-on lessons. It aims to promote healthy habits, prevent injuries, and increase the number of children walking and biking safely.

While people of all ages walk and bike, children incur a disproportionate number of walking and biking injuries. These injuries can be very serious, yet they are preventable! The BikeSmart curriculum was written and taught in Vermont schools by the Vermont Pedestrian and Bicycle Coalition from 2003-2006. This program was effective in raising students' awareness of safe bicycling practices. This 2007 version of the curriculum includes pedestrian safety for children in grades K-2 and an expansion of bicycle safety for children in grades 2-6.

Benefits and Value of Pedestrian and Bicycle Safety Education

There are many benefits to teaching children and youth about pedestrian and bicycle safety. For one, it promotes wellness and prevents injury. Currently in the United States the medical and financial consequences of obesity are threatening the country's public and private capacities. In 2001 the U.S. Department of Health and Human Services recommended that communities work to reduce the prevalence of overweight children and adolescents by providing a safe environment for them and their friends to play actively and by encouraging walking, swimming, biking, skating, ball sports and other fun activities.

Pedestrian and bicycle safety promotes physical activity and lifelong habits that help curtail the increasing prevalence of overweight and obesity among children and youth. It encourages activity that improves motor skills, coordination, and balance. Pedestrian and bicycle travel produces no exhaust and air pollution that can cause chronic lung problems, and it also results in less traffic congestion and contributes to an overall healthier population.

In addition, it creates future drivers who are knowledgeable about traffic rules and more aware of pedestrian and bicycle safety issues.

Education in pedestrian and bicycle safety aims to address these national statistics:

Pedestrian Safety Data

- 4,739 pedestrians died in the United States during the year 2000. This represents 11% of motor vehicle deaths nationwide (Insurance Institute for Highway Safety, 2001);
- Almost one-fourth (22 %) of all children between 5-9 years old who were killed in traffic crashes in 2003 were pedestrians. (National Center for Statistics and Analysis, 2003)

Bicycle Safety Data

- 690 bicyclists were killed and 51,000 were injured in the United States in the year 2000 (Insurance Institute for Highway Safety, 2001);
- Bicyclists under 16 accounted for 23 % of bicyclists killed and 37% of those injured in 2003. Rates of injuries and fatalities is much higher for males than females (Insurance Institute for Highway Safety, 2001);
- Universal bicycle helmet use by children ages 4 to 15 would prevent tens of thousands of head,

The good news, however, is that...

Walking and Biking in Vermont is Much Safer Than You Think!

For many people the perception is that it is unsafe to walk and bike in Vermont. On the contrary, Vermont is a safe place for pedestrians and bicyclists. This is borne out by the following data: In Vermont in 2005, three pedestrians were killed in a traffic crash and there were no fatalities involving bicyclists. In the previous four years, an average of less than 1 cyclist and six pedestrians died in traffic crashes per year.

Vermont Fatalities	01	02	03	04	05
Pedestrians	5	4	7	7	3
Bicyclists	0	1	1	1	0

National Highway Traffic Safety Administration 2005

Walking and bicycling are safe ways for children and adults to get around and increase their fitness levels.

Getting to Know Your School Community

The following information will be useful as you prepare to teach the children in your school.

What percent of children walk to school?

What percent of children live close enough to walk to school but don't?

What percent of children ride the bus to school?

What percent of children are driven to school in a vehicle by a parent?

This will help familiarize you with the particular issues facing your community in encouraging walking and biking to school.

CURRICULUM OVERVIEW

Our WalkSmart and BikeSmart programs teach safety and provide the opportunity to meet many of the educational goals in Vermont's Framework of Learning. For a listing of Resources to support the work of WalkSmart / BikeSmart Vermont!, including Walking and Bicycling in the Vermont PK-12 Physical Education Grade Expectations, please visit: healthandlearning.org - Pedestrian and Bicycle Resources.

This curriculum is geared to children in grades K-6 who will be navigating roads in primarily rural situations. In an attempt to keep the content manageable for one annual lesson, many choices had to be made about the key concepts and skills to feature in the curriculum. Vermont's rural character was taken into account in these decisions. In the course of discussion with students, safety situations that may occur more frequently in urban and suburban settings may arise and be addressed in discussion. The section entitled: Basic Concepts in Pedestrian and Bicycle Safety provides additional information to assist with those discussions.

The curriculum is divided into two sections: a pedestrian safety program for kindergarten through second grade students and a bicycle safety program for students in grades 2-6. We are promoting the instruction of one lesson on pedestrian safety in the fall to grades K-2, and one lesson on bicycle safety in the spring to grades 2-6, ideally one lesson for grades 2-3, and one lesson for grades 4-6 at each school in Vermont. See Table 1: Lessons-Key Concepts and Skills for a summary of the key concepts and skills covered in the WalkSmart / BikeSmart Vermont! curriculum.

The lessons are designed to:

- ✓ Keep children actively engaged;
- ✓ Integrate children's experience and skills into the activities;
- ✓ Practice decision-making skills for healthy and safe choices.

The pedestrian safety lessons are taught to K-2 students. The bicycle safety lessons are taught to grades 2-6. The objectives of each lesson are included in the lesson plans.

Each lesson includes these components:

- Instructional time
- Objectives
- Materials
- Tips for preparation
- Activities
- Integration ideas

Materials

The materials needed for each lesson are listed at the beginning of each lesson. Most of the overheads, graphics, and handouts for each lesson are included after the lesson plan. In some cases it suggests you draw a large graphic on a board or mark off an area with tape on the floor. You should also feel free to make and use your own props.

Participation Records

Documenting the total number of classes and students receiving pedestrian and bicycle safety education is one way for us to measure progress toward the goal of statewide instruction. A form is provided in Appendix 1: *WalkSmart / BikeSmart Vermont! Participation Record* for instructors to keep track of the number of lessons taught, the number of students who participated and the time it took to teach the lessons. Please use this form to report to the Center for Health and Learning following your instruction.

Table 1: WalkSmart / BikeSmart Vermont! Lessons: Key Concepts and Skills

This table summarizes the key concepts and skills covered in the WalkSmart / BikeSmart! curriculum.

WALKSMART / BIKESMART VERMONT!	
GOAL: One <i>WalkSmart</i> lesson taught to children in K-2 in the fall. One <i>BikeSmart</i> lesson taught to children in grades 2-6 in spring, ideally one lesson for grades 2-3, and one lesson for grades 4-6	
Key Concepts & Skills	
<p>Pedestrian Safety One lesson for Kindergarten and/or Grades 1-2; 30-45 minutes</p> <p>Walking Safely in Traffic Use a sidewalk if it exists Walk left, facing traffic Dress to be seen Avoid headphones and/or iPod use (Grades 1-2)</p> <p>Crossing Roads and Driveways Safely Recognize an edge Look <i>Left-Right-Left</i> Recognize visual barriers Cross in a straight line and continue to look Cross safely at an intersection</p> <p>Getting Out of a Car Safely Get out of a car safely: ...at school (K) ...on a road (1-2) ...in a parking lot (1-2)</p> <p>Getting On and Off a Bus Safely Wait for a bus safely Get off a bus safely</p>	<p>Bicycle Safety One lesson for Grades 2-3 and one lesson for Grades 4-6; 45-60 minutes</p> <p>Helmet Safety Know when to wear and replace a helmet Know how to wear a helmet ...Eyes-Ears-Mouth ...Don't wear iPod or headphones (4-6) Know when to replace your helmet</p> <p>What to Wear Dress light and tight Know how to carry loads</p> <p>Bike Quick Check Check air brakes, chain and quick releases (4-6)</p> <p>Rules of the Road Ride right Know rights and responsibilities as a vehicle Recognize road signs and use signaling Identify road hazards (4-6) Single file (4-6)</p>

Student Assessment

The curriculum provides student pre-and post-lesson tests that can be used to assess what students learned. Instructors will be encouraged to administer the assessment before instruction, and then classroom teachers will be encouraged to administer the assessment a week or two later. This information can be used as a basis for evaluating effectiveness of instruction. Administering the assessment orally and asking students to respond with raised hands provides quick survey data on the base knowledge of students and the outcomes of instruction.

Student Certificates

A certificate of completion is provided for any child who participates in the lessons and completes a post-test with a score of 80% or better. The certificate recognizes the participation of children in the lessons and

the commitment of the school to providing pedestrian and bicycle safety instruction The certificates list the key concepts of the lessons and therefore also serve as a means of parent education.

Pedestrian and Bicycle Safety Educators in Vermont

The lessons can be taught by classroom or physical education teachers, school administrators, volunteers from local bike clubs, police officers, or anyone who wants to encourage walking and biking. It is important for the teacher to be a good role model, someone who seeks to share a love of walking and bicycling with the next generation. Appendix 2: Vermont Pedestrian and Bicycle Safety Educator Competencies outlines the basic knowledge, skills and personal characteristics of a Safety Educator. This tool can be used to help the Safety Educator determine what areas of competency they may need to develop and/or what resources may be useful to them.

Parent and Community Involvement

The curriculum provides parent education handouts to send home when the lessons are taught. Educating parents while we educate children increases the likelihood that the children will be provided the opportunities to walk and bike and that the concepts and skills taught will be discussed and reinforced. Parents can be asked to assist with the lessons and/or help set up a bicycle safety fair. Organizations such as the local PTA or the Safe Kids Coalition may be willing to donate money, volunteer time, provide materials and props, or assist in other ways with the promotion of walking and biking, and pedestrian and bicycle safety. See Appendix 3: Parent/Guardian Announcement for a flyer that can be sent home about WalkSmart / BikeSmart Vermont!

Parent/Guardian Announcement

It is ideal to send an announcement home to parents and guardians about the program prior to, during, or just after the classroom lesson occurs so that parents can ask children about the lesson and hopefully reinforce some of the learning. Please see: Appendix 3: Parent/Guardian Announcement About WalkSmart / BikeSmart Vermont!

School Newsletter Inserts

There are school newsletter inserts containing information about pedestrian and bicycle safety and seasonal safety messages available for download at healthandlearning.org - Pedestrian and Bicycle Safety Resources.

Resources and Tools

This curriculum will be greatly reinforced if schools find ways to reinforce the lessons before and after the presentations. When schools participate in other pedestrian and bicycle safety activities such as Walk to School Day, Bike Safety Fairs, or bike helmet sales, etc. they reinforce the concepts of the curriculum and make it more likely that students will remember and practice safe walking and bicycling.

A list of national and state resources to support this work are available on the Center for Health and Learning web site. Visit: healthandlearning.org and click on Pedestrian and Bicycle Safety Resources.

These resources include:

- ✓ Links to other curriculum and resources (e.g., Interactive CD-ROM'S, etc.);
- ✓ Parent and community information materials;
- ✓ Setting up a Bicycle Safety Fair in Vermont;
- ✓ Newsletter inserts for downloading to school newsletters, et al

Bicycle Helmet Sales and Safety Fairs

Some communities organize Bicycle Safety Fairs and helmet sales. This is a good way to ensure that students have helmets as well as increase community interest in bicycle safety. These activities can be organized by a PTA, school booster or sports club, or other community group. These groups can also be encouraged to buy helmets to donate to children in need or develop a scholarship program for helmets. Helmets can be purchased inexpensively through Safe Kids Vermont. Safe Kids Vermont and the Vermont Pedestrian and Bicycle Coalition have published a guide called: Teaching at a Bicycle Safety Fair in Vermont which provides instruction materials, tips, and checklists for organizers of Bicycle Safety Fairs. For links to the resources noted above, see healthandlearning.org – Pedestrian and Bicycle Resources.

BASIC CONCEPTS OF PEDESTRIAN AND BICYCLE SAFETY

Adapted from the Maryland Pedestrian and Bicycle Safety Education Program-Teacher's Guide.

It is important to understand the basic concepts of pedestrian and bicycle safety. This section provides an overview of the major concepts taught in the program.

Pedestrian Safety Concepts

Supervise Young Children

Most children in kindergarten through second grade are not ready to cross streets on their own. They should be encouraged to cross the street only with the help of an adult. Children typically develop the cognitive ability to cross streets on their own between ages 9 and 10 (third and fourth grade).

Stop at the Edge

Most children do not fully grasp the dangers they face crossing streets. Children are often taught to stop at the curb before crossing. Still, in many locations parked cars or other visual barriers block the view of oncoming traffic. It is important therefore, to teach children the concept of stopping at the edge, a safe place to view traffic.

Look Left-Right-Left

Children should be taught to look for approaching traffic. They should look left, then look right, and then look left again. You look to the left first because that is the vehicle lane closest to you. Looking left a second time is critical, because a vehicle may have turned into the roadway quickly or be traveling at a speed faster than expected.

Scan Left and Right

It is important to continue to look left and right while crossing. This is called scanning. Scanning helps to detect surprise dangers, e.g., vehicles may turn into the roadway from nearby driveways or may be accelerating suddenly.

Scan Left-Right-Left at a Second Edge

In some cases it may be necessary to walk from one edge, such as the edge of the road, a sidewalk or bus, to a second edge, such as the border of a parked car, the outside edge of the bus, etc. to see better. In this case, children should be taught to scan as they proceed from the first edge to the second edge and then through the crossing.

Walk, Don't Run

Children may want to run across the street in order to cross quickly, but this can cause a fall and make it difficult to scan left and right. Children should not run when crossing the road, driveways or in a parking lot.

Use Sidewalks When Available

Children should be taught that when there is a sidewalk available, they should use it.

Walk Facing Traffic When There are No Sidewalks

Pedestrians should walk facing traffic on roads without sidewalks so they can keep their eyes on vehicles. Children should be taught to walk on the left side of the road as this enables them to make decisions in the face of oncoming traffic.

Walk Straight Across the Roadway

Crossing a street diagonally increases the amount of time a pedestrian is exposed to traffic. Children should be taught to cross in a straight line. This minimizes the amount of time spend in the vehicle travel lanes.

Cross at Appropriate Locations

Crossing between parked vehicles or at the crest of a hill is a major cause of accidents. In these cases it is difficult for both drivers and pedestrians to see each other. Fencing or shrubbery near a driveway or entrance to a roadway causes similar problems. Children should be taught to cross at a corner, crosswalk or in a place with high visibility.

Be Aware of Multiple Threat Situations

Many accidents occur when a pedestrian crosses before both lanes of traffic have stopped. Children should be taught to wait until all vehicles in all lanes in all directions are stopped.

Beware of Bus Blind Spots

There are many blind spots around a bus, primarily those extending about ten feet in front of and on each side of the bus, where the driver cannot see pedestrians. Children should be taught to walk at least five feet straight out from the bus doorway and then at least ten feet beyond the front of the bus when crossing in front of the bus. In addition, children should never cross behind a school bus because the driver cannot see them.

Use Crosswalks Cautiously

Drivers are required by law to yield to pedestrians in a crosswalk, but crashes still occur there. Children should be taught to follow the usual rules: look left -right-left and scan while walking across the crosswalk.

Look Behind at Intersections

It is important that children check for vehicles coming from behind before crossing a driveway or other intersection.

Maintain Visibility at Night

Brightly colored (or reflective) clothing makes pedestrians more visible to drivers. Pedestrians are better able to see the headlights of a vehicle coming at night than the driver of the vehicle is able to see them. Drivers will not see a pedestrian until they are within 50-100 feet. Depending on the vehicle's speed, this distance may be too short to stop. Children should be taught to wear appropriate clothing to be seen.

Avoid Barriers to Hearing

Headphones inhibits a pedestrian's ability to hear a vehicle that has suddenly entered the roadway or is approaching more quickly than expected. Children should be taught not to cross roads while listening to headphones.

Observe Pedestrian Signals

Some crosswalks in towns and cities have pedestrian signals. Cross when the pedestrian signal says "WALK" or when the pedestrian symbol appears. The flashing "DON'T WALK" or red hand symbol means you should not start crossing but should finish if you have already started. Do not cross when a steady (not flashing) "DON'T WALK" or a red hand symbol is showing.

Never Chase Objects into Streets

Children should never chase a ball or other object into a street. This is a major cause of pedestrian – vehicle

crashes. Children should get an adult before going into a roadway to retrieve an object. When they do enter the roadway, they should look left-right-left, walk straight to the object and scan while crossing.

Bicycle Safety Concepts

Use Helmets

Children should be taught to always wear a helmet while riding a bicycle, regardless of where they are riding. Helmet use would prevent the majority of bicycle-related injuries.

Check Helmet Fit

Check for these things when fitting a helmet:

Helmet should be level on head.

The front and back straps should meet at a V below the ear.

There should be space for about two fingers between the eyebrows and the bottom of the front of the helmet.

The helmet should be visible when you look up at it.

The helmet will move the skin on the forehead without sliding around on the head when it is pushed back and forth.

The helmet and chin strap will feel tight when you open your mouth wide.

Care for Your Helmet

Helmets lose their effectiveness when they are banged hard, are in a crash, or are older than five years. They should be replaced immediately when dented or damaged.

Prepare to Ride Safely

It is essential to check clothing and bicycle equipment before riding. Complete the checks below before riding.

“You Check”

Are you...

- ✓ Wearing a properly fitted helmet?
- ✓ Wearing brightly colored clothing?
- ✓ Have no dangling shoe laces or pant legs that could get caught in the chain?
- ✓ NOT wearing headphones or anything else that would distract from hearing?

Bike Fit Check

Check the bike for proper fit before riding. The Bike Fit Check requires the rider to stand over the frame of the bike with feet flat on the ground and make sure that there is 1-3 inches of clearance over the top bar. If the rider can't do this, the bike is too big. If there is greater than a 3 inch clearance, the bike is too small (unless you are riding a BMX or freestyle bicycle). Some girls frames do not have a top bar. For those bikes, use the bicycle seat height and your leg length to determine if the bike is a good fit. Proper bike fit is the same for a boy or a girl. (Girl's or women's frames were designed early in the history of the bicycle so that women could cycle while wearing a dress.)

Bicycle Seat Height and Leg Extension

The seat should be adjusted for young and inexperienced riders so they can sit on the seat with feet touching the ground. This allows more control and reduces the chance of falling if they lose control of the bike. More experienced riders can adjust the seat so that they have a slight bend in the knee when the foot

is at the bottom of the pedal stroke. This longer leg extension gives the rider more power when pedaling.

ABC Quick Spin Check

Children can be taught this quick check before riding.

- ✓ A is for air (squeeze the tires to make sure that they are firm)
- ✓ B is for brakes (squeeze the brakes and push the bike forward and backward to make sure that the bike does not move)
- ✓ C is for chain and crank (make sure the chain is not too loose or rusty; grab the crank arms- the pieces to which the pedals are attached – and try to wiggle them side to side to make sure they do not move)
- ✓ Quick is for checking that the quick releases are tight - they are generally located on the front and rear hubs and the seat post.;
- ✓ Spin is for spinning the wheels to make sure they spin smoothly, don't wobble, and have no broken, missing, or loose spokes.

Ride “Right” With Traffic and Follow All Traffic Laws

Bicycles are vehicles and bike riders are responsible to the same traffic laws as motorists. They should ride with traffic and must follow all traffic laws, including stopping at stop signs and red traffic lights (even when making a turn). Vermont law states:

23 VSA § 1136. Application of subchapter___
c) Every person riding a bicycle is granted all of the rights and is subject to all of the duties applicable to operators of vehicles, except as to those provisions which by their very nature can have no application. (Added 1971)

Scan and Signal

Bicyclists must look in front of, to the left, and behind themselves periodically so that they are aware of surrounding traffic. This is called scanning. Children should be cautioned not to swerve into traffic when scanning. The bicyclist can drop the opposite shoulder slightly when they look over their shoulder. It is critical to scan before signaling and turning.

Hand Signals

There is no bicycle-specific law for hand signals in Vermont. The law that applies is written for motor vehicle drivers 23 VSA 1065, which is applied to bicyclists via 23 VSA 1136(c). Left hand signaling was developed for drivers and the intent of signaling is to communicate with other drivers. To signal a left turn, extend your left arm to the side and point index finger to the left, “Point left.” To slow or to stop, extend your left hand down beside your left leg. As it is currently written, Vermont law requires a bicyclist to use the left hand, bent and pointing up to signal a right hand turn. However, it should be noted that pointing with the right hand communicates more clearly and effectively, and it is also less confusing for children. If a child cannot remember the left hand signal, then they should point in the direction they are turning.

23 VSA § 1065. Hand signals___
(a) All signals to indicate change of speed or direction, when given by hand, shall be given from the left side of the vehicle and in the following manner:
(1) Left turn. - Hand and arm extended horizontally.
(2) Right turn. - Hand and arm extended upward.
(3) Stop or decrease speed. - Hand and arm extended downward.
(b) No turn to right or left may be made without first giving a signal of an intention to do so either by hand or by signal in

Avoid Hazards

Hazards such as debris and potholes may not be detected by the bicyclist until they nearly hit them. If these objects are struck, the bicyclist may fall or cause a crash. If the bicyclist swerves, they may fall or be struck by a vehicle. It is important to maintain control of the bike and continue to ride in a straight line.

Establish Eye Contact with Drivers

It is important to look drivers in the eye to make sure they see you and check on what they may do. This is particularly important at the end of driveways, in intersections and other places where you may cross the path of the car. Children should be taught to stop to make sure a driver sees them and go only when they are sure it is safe.

Ride With Caution in the Dark

Children should not ride in the dark, even with a light. Adults who ride at night must by law, use a front white light and must have a rear red reflector. In addition, a rider should wear reflective clothing and could also have blinking red lights on the rear of their bicycle.

The following three concepts are not taught directly through BikeSmart Vermont! lessons, but may come up in Physical Education class or discussions.

Know Your Brake System and How to Stop

Stopping is an essential skill to avoid riding out into traffic from driveways and intersections and to be able to avoid unexpected hazards. There are two different types of brakes. One is coaster brakes. The rider brakes by pedaling backwards. The child has to rotate the pedals forward to put them in the proper position to begin riding.

The second type is hand brakes. The rider can slow the rear wheel by squeezing the brake lever on the right handlebar. Children should be encouraged to use the right/rear brake. Braking too hard and fast using the left/front brake only can cause the front of the bike to slide out from under them or the rear of the bike to lift and the rider could lose control or flip over. Children should be taught to use both brakes together or the right/rear alone.

Get Off the Bike (“Dismount”) Safely

Children should use the following procedure to stop and dismount the bike:

Slow the speed of the bike by applying the brakes

As the bike nears a stop, slide forward off the seat and take the right foot off the pedal

Lower the right foot toward the ground as the bike continues to slow

At the moment the bike stops, the right foot touches the ground

Steer in a Straight Line

Weaving into the path of a vehicle could cause a crash. This skill is important because drivers expect bicyclists to ride in a straight line.

WALKSMART VERMONT! KINDERGARTEN

Time: 45 minutes

Vermont has set a goal to have one *WalkSmart Vermont!* lesson taught to children in kindergarten through second grade in the fall of each year.

Vermont Standards

- 5.5 Students make informed, healthy choices that positively affect the health, safety and well being of themselves and others.
Evidence: Students demonstrate knowledge and skills to make informed choices and decisions about walking safely.
- 3.6 Students demonstrate competency in many and proficiency in a few of the skills and concepts needed for a lifetime of physical activity.
Evidence: Students practice personal and group safety by applying rules, procedures, and practices of pedestrian safety.

Key Concepts and Skills

Table 2: *WalkSmart Vermont!* Key Concepts and Skills

This table summarizes the key concepts and skills covered in the *WalkSmart / BikeSmart Vermont!* curriculum

WALKSMART / BIKESMART VERMONT!

Key Concepts & Skills

Walking Safely in Traffic

Use a sidewalk if it exists
Walk left, facing traffic
Dress "light" to be seen
Avoid headphone and/or iPod use (1-2)

Crossing Roads Safely

Recognize an edge
Recognize a second edge
Look *Left-Right-Left*
Recognize visual barriers (Grades 1-2)
Cross in a straight line and continue to look
Cross safely at an intersection

Getting Out of a Car Safely

Get out of a car safely:
...at school (K)
...on a road (1-2)
...in a parking lot (1-2)

Getting On and Off a Bus Safely

Wait for a bus safely
Get off a bus safely

Assessment

There are four major concepts taught in this lesson.

Students will be able to explain and demonstrate how to:

1. Walk safely in traffic
2. Cross roads safely
3. Get out of a car safely
4. Get on and off a bus safely

Students will score 80% correct on the pre-post assessment of knowledge and attitudes about walking safety.

Teaching Materials

Whiteboard or chalk board

Dry-erase pen or chalk and eraser

Masking tape

Sidewalk chalk

And/or Felt board with felt pieces
(cars, pedestrians, etc.)

Overhead projector

Overhead transparency markers and
erase cloth

Car Activity Sheet

Pedestrian Activity Sheet

Bus Activity Sheet

Overhead: *The Edge*

Overhead: *Cross in a Straight Line*

Overhead: *Crossing at an Intersection*

Overhead: *Getting Out of a Car Safely*

Overhead: *Bus Danger Zones*

(If necessary, the overheads can also be drawn on a large
sheet of flipchart or on the whiteboard or chalk board.)

Before you begin:

On a large sheet of butcher paper draw a simple map of an intersection, large enough for students to walk on.

Or

With masking tape, frame out two streets running perpendicular with a four way intersection on the floor, large enough for two students to walk down the “street” side by side.

Or

Use sidewalk chalk and do this outside on the blacktop of the playground.

Background Information

In the United States, children aged 5-9 have the highest rate of pedestrian-automobile crashes of any age range in the population. The leading cause of these crashes is the failure of the child to stop at the edge of the roadway and check for moving cars. This is often referred to as “darting out” into traffic. A major focus in this lesson is teaching the child to recognize an edge and to wait at the edge until they can safely check for traffic before proceeding.

Children in the kindergarten to second grade age group have generally not developed the perceptual skills to walk alone safely where there is traffic. Children are themselves small and have difficulty seeing around objects. Their perception of speed and distance is still developing. Children will often misjudge situations. This curriculum recommends that children walk with adults or older children (above the age of ten) in travelled areas.

Vocabulary

Intersection – a place where two streets or pathways cross

Crosswalk – marked lines across the street that tell walkers where to cross the street

Edge – the side of the road, the end of the sidewalk, the end of a driveway or the end of a parked car

Pedestrian – a person who travels on foot

INTRODUCTION

Introduce yourself and the **WalkSmart Vermont!** curriculum. *WalkSmart* teaches children the importance of walking safely in traffic. The title of the program includes the word “smart” and our emphasis to children is

on thinking when you're walking in traffic.

Ask students: What are some reasons it is good to walk to get around or go somewhere?
Solicit ideas, then review the four reasons using the poster: *Biking and Walking - Good Ways to Get Around!*

On the poster the four reasons are:

- ✓ It cuts down on pollution
- ✓ It cuts down on traffic
- ✓ It is good exercise
- ✓ It's fun!

Please note: The lesson covers these major concepts in very limited time. In order to stay within the time limit, the lesson is structured to be interactive with guided discussion. This requires the instructor to limit student anecdotes.

WALK SAFELY IN TRAFFIC

Ask students to raise their hands if they sometimes:

- walk to school
- walk home from school
- walk to the store
- walk to the library
- walk to the post office
- walk to a friend's house

Conclude: We all get around a lot using our feet. Today I am going to teach you safety rules to follow when walking in traffic.

Use a sidewalk if it exists

Ask: Who lives on a street where there are sidewalks?
If there are sidewalks on your street, which is best, to walk on the sidewalk or walk in the street?
(The sidewalk.)

Ask: Where do you walk when there are no sidewalks?
(You walk along the edge of the road facing traffic.)

Walk facing traffic

Ask: What does it mean to walk facing traffic?
(To walk towards the traffic on the left side of the road.)

Ask: Why do we want to walk facing traffic?
(So you can be seen by a driver and you can see the driver.)

Activity to reinforce the concept of facing traffic:

Have children break into two lines. The person at the head of one line holds the *Car Activity Sheet*. The person at the head of the other line holds the *Pedestrian Activity Sheet*. The car enters the street and proceeds ahead. The pedestrian places themselves on the same street and walks facing traffic.

After the first pair has done this successfully, they pass the activity sheets to the next pair. Then proceed through the line until all students have practiced facing traffic.

Dress “light” to be seen

Explain: When you are walking along roads at dusk or at night it is very hard to see you. And it is important to be seen, even if you are on a sidewalk, so as to be safe from traffic. The best way to be seen is to wear white or light-colored clothing. There are also reflective bands you can put on your arms, or you can wear a reflective jacket or shirt. You can also carry a flashlight.

Activity to reinforce the concept of dressing to be seen:

Ask children to look around at their own clothing and determine if it is white or light and therefore safer for nighttime walking. The instructor can show a piece or two of reflective gear.

CROSS ROADS AND DRIVEWAYS SAFELY

Explain: Now we are going to learn how to cross a road safely.
Raise your hand if you...
Have to cross a road to walk to school?
Have to cross a road to walk to the library?
Have ever crossed a road when a car suddenly came upon you and surprised you?
Ever chased a ball or other toy into the road?

Recognize an edge

Explain: The first thing you need to understand about crossing a road safely is the idea of an edge of a road.
Instructor places a pencil at the edge of a desk.

Ask: Where is the edge of the desk? What happens to the pencil when it goes off the edge?

Explain: When talking about crossing a road the word edge often means the curb, or the side of the road, and it is the line between being safe and being in danger.

Display the Overhead: The Edge (If necessary, this overhead can be drawn on the whiteboard or chalkboard.)

Explain: Let's look at this diagram of a road.

Ask: Which shape is in a dangerous place?
(Square)
Which shape is in a safe place?
(Triangle)
Which shape is on the edge?
(Circle)

Explain: The edge is the side of the road, the end of the sidewalk, the curb of the road, or the end of a parked car. An edge is a safe place to look for cars because you can see that they are coming, but you are still far enough away from them to be safe. There are rules to follow when you are on the edge.

Recognize a second edge

Display the Overhead: The Second Edge (If preferred, this overhead can also be drawn on the whiteboard or chalkboard.)

Explain: Now let's look at the next diagram. In this diagram there are parked cars on the road. If someone was going to cross, they would need to walk out to the edge of the parked cars and

stop there before crossing. That edge is called the second edge.

Ask: Where is the second edge?
(At the edge of the cars.)

Look Left-Right-Left

Explain: Before you cross you need to look left, look right, and look left again.
Instruct students to turn their heads to the left.

Ask: Why do we look left?
(We look left in order to see the traffic. That is the direction that cars are coming from.
Instruct them to turn their heads to the right.)

Ask: Why do we look right?
(We look right to see cars coming in the opposite direction.)
Instruct them to turn their heads to the left again.

Ask: Why do we look left again?
(We look left again because a car might be coming from that direction again.
You are looking to find the moment when the road is clear. Then you cross.)

Activity to reinforce the concept of look Left-Right-Left:

Have students pretend to stand at the edge of the road and demonstrate looking left, right, left.

Cross in a straight line and continue to look

Explain: Once you look Left-Right-Left you continue to look until the road is clear; there are no cars coming at all. Listen for the sound of car motors, car doors, sirens, and horns before you step into the road. Now you should walk in a straight line across the road. Continue to look Left-Right-Left.

Display the Overhead: Cross in a Straight Line (If preferred, this overhead can be drawn on the whiteboard or chalkboard.)

Ask : Look at the two routes across the road. What is the shortest route and the fastest way across the road?
(Letter A- the straight line. If you walk straight across, it is the shortest route and fastest way. If you walk on the Letter B- the angle- it will take longer.)

Explain: Always walk (don't run) across a road. You can't see well when you are running and you could fall. Never run into the road after a ball or other object.

Activity to reinforce how to retrieve a ball or other object that rolls into the road.

Have students pretend to stand at the edge of the road and demonstrate looking Left, Right, Left. Roll a ball into the road.

Ask: What should you do?

Answer: I ask an adult to get the ball.
When I am a little older, I will be able to get the ball by looking Left-Right-Left and make sure no cars are coming.

Cross safely at an intersection

Display the Overhead: Crossing at An Intersection. (If preferred, this overhead may be drawn as a picture. You may also use the area on the floor marked with tape or a felt board.) Point to the diagram while explaining what an intersection and cross-walk are.

Explain: Now we will learn about what an intersection is. An intersection is where two roads cross each other. You should use the same rules we already learned when crossing at an intersection. If there are traffic lights you follow the rules of the light. Review traffic light signals: green means go, red means stop, yellow means go with caution.
A crosswalk is a painted area on a road which tells you where to cross. Cross at corners and use crosswalks whenever possible; always stay within the lines of the crosswalk.

GET OUT OF A CAR SAFELY

Get out of a car at a school or store

Display the Overhead: Getting Out of a Car Safely (If preferred, this overhead can be drawn on the whiteboard or chalkboard.)

Explain: When you are dropped off at school or at a store or in town, always get out on the curb side. Look at the diagram in the overhead. Point to the car by the school.

Ask: Which side should someone get out of the car?
(Curb or school/store-side.)

Ask: Where is the safest place to cross to the school/store?
(The cross-walk.)

GET ON AND OFF A BUS SAFELY

Use the Bus Activity Sheet.

Waiting for a bus

Explain: Stay on the sidewalk or the edge until the bus arrives. Approach the bus when the driver says it is okay. Look Left-Right-Left before entering the road to board the bus.

Have students practice by getting in a line at the edge of the road. One student holds the Bus Activity Sheet and pretends they are the driver of a bus pulling up in front of the line of students. The driver gives the okay and students practice boarding the bus. When they get to the bus, they return to their seat and the next person in line boards the bus.

Getting off a bus

Display Overhead: Bus Danger Zones

Explain: A bus blocks the view of the pedestrian.
Point to each danger zone.

Ask: Why is this a danger zone?
(Point out how in each danger zone a pedestrian cannot see clearly and others cannot see the pedestrian.)

Ask: What should you do when you get off the bus on the same side of the street as your home?
(Get clear of the door and walk straight to the edge of the road.)
Trace this path on the overhead.

Ask: What should you do when you get off the bus and need to cross the street?
(Step off the bus and walk five big steps toward the edge of the road, turn left and walk ten big steps past the front of the bus. Look at the driver, walk past the front of the bus and look Left, Right, Left until you cross the road.)

Activity to Reinforce the Concept of Getting Off a Bus:

Have students practice. One student holds the Bus Activity Sheet and pretends they are the driver of a bus. All other students sit in the imaginary rows of seats behind the driver. The driver pulls up to a destination and stops. The driver gives the okay and one student practices getting off the bus. They walk straight to the

edge (five steps), left (ten steps) and then cross safely in front of the bus looking Left-Right-Left.

REVIEW AND CONCLUDE

The instructor should review with the students what was taught today:

- What is an edge?
(The side of the road)
- What are the steps for crossing a road safely?
(Cross the street with the help of an adult. Go to the edge. Look Left-Right-Left.)
- What should you do if a ball or other object rolls into the street?
(Get the help of an adult. Never follow an object into the street.)
- Should you walk facing traffic or with traffic?
(Facing traffic.)
- What color clothing should someone wear if they are walking in the evening?
(Dress "light"-white, yellow or reflective.)
- What is the safest route across a street?
(In a straight line not on an angle/diagonal.)

Certificates

Congratulate the students on learning how to walk safely and give them their Certificate of Participation.

Assessment

Each of the activities in the lesson provides the opportunity to assess student's knowledge and their ability to apply what they have learned. In addition, instructors can:

- Implement the post-test. The questions can be read aloud to the students and they can select the answer.
- Take the children to a village location if possible, where students can practice and demonstrate crossing the street, stopping at edges, and identifying dangerous locations. Teachers can use observation, instruction and feedback to coach the students.

Family/Community Involvement

Send home the *About WalkSmart / BikeSmart Vermont!* and the *WalkSmart Vermont!* Parent-Guardian letter. It identifies the skills students have learned and asks family members to practice them with their children.

Additional Activities for Curriculum Integration

Language Arts

Write or draw a simple procedure for crossing the street safely. Have children identify the concepts outlined in the lesson.

Art

Students can draw traffic lights: Green (go), Yellow (Caution), Red (stop).

Students can make posters with a safety tip for walking and a drawing to demonstrate the tip.

Physical Education

Play an adaptation of Red Light, Green Light.

Instructor stands at the front of the room. Children line up at the opposite end of the room. Instructor yells Green, Yellow or Red and students have to walk briskly, walk cautiously or stop accordingly. Game ends when instructor is tagged, students turn and run back to starting line and instructor attempts to tag someone who becomes the next caller.

WALKSMART VERMONT!

PRE-POST QUESTIONS, KINDERGARTEN

Student name: _____ Gender _____

Instructor: _____

Date of administration: _____

This test should be administered orally. Student responses can be tallied by the instructor.

1. When you are walking down a road and there is a sidewalk, should you walk on the sidewalk or in the road?

a) Along the road _____

b) Sidewalk _____

2. When you are walking in a road without sidewalks, should you walk facing the cars or with the cars coming from behind you?

a) Facing the cars _____

b) Cars behind you _____

3. When you are crossing a road, should you look Left-Right-Left or Right-Left-Right?

a) Left-Right-Left _____

b) Right-Left-Right _____

4. When you are crossing a road, do you cross in a straight line or at an angle?

a) At an angle _____

b) Straight line _____

5. When you get off a school bus and you need to cross the road, do you cross in front of the bus or behind the bus?

a) In front of the bus _____

b) Behind the bus _____

Bonus Question

6. What is a good reason to walk?

a) It is good exercise and fun _____ b) It cuts down on pollution _____ c) Both a and b _____

WALKSMART VERMONT!

PRE-POST QUESTIONS, KINDERGARTEN - ANSWERS

The correct answers are bolded.

1. When you are walking down a road and there is a sidewalk, should you walk on the sidewalk or in the road?

a) Along the road

b) Sidewalk

2. When you are walking in a road without sidewalks, should you walk facing the cars or with the cars coming from behind you?

a) Facing the cars

b) Cars behind you

3. When you are crossing a road, should you look Left-Right-Left or Right-Left-Right?

a) Left-Right-Left

b) Right-Left-Right

4. When you are crossing a road, do you cross in a straight line or at an angle?

a) At an angle

b) Straight line

5. When you get off a school bus and you need to cross the road, do you cross in front of the bus or behind the bus?

a) In front of the bus

b) Behind the bus

Bonus Question

6. What is a good reason to walk?

a) It is good exercise and fun

b) It cuts down on pollution

c) Both a and b ____

WALKSMART VERMONT!

GRADES 1-2

Time: 45 minutes

Vermont has set a goal to have one *WalkSmart Vermont!* lesson taught to children in kindergarten through second grade in the fall of each year.

Vermont Standards

- 5.5 Students make informed, healthy choices that positively affect the health, safety and well being of themselves and others.
Evidence: Students demonstrate knowledge and skills to make informed choices and decisions about walking safely.
- 3.6 Students demonstrate competency in many and proficiency in a few of the skills and concepts needed for a lifetime of physical activity.
Evidence: Students practice personal and group safety by applying rules, procedures, and practices of pedestrian safety.

Key Concepts and Skills

Table 2: *WalkSmart Vermont!* Key Concepts and Skills

This table summarizes the key concepts and skills covered in the *WalkSmart / BikeSmart Vermont!* curriculum

WALKSMART / BIKESMART VERMONT!

Key Concepts & Skills

Walking Safely in Traffic

Use a sidewalk if it exists
 Walk left, facing traffic
 Dress to be seen
 Avoid headphone and/or iPod use

Crossing Roads Safely

Recognize an edge
 Look *Left-Right-Left*
 Recognize visual barriers (Grades 1-2)
 Cross in a straight line and continue to look
 Cross safely at an intersection

Getting Out of a Car Safely

Get out of a car safely:
 ...at school (K)
 ...on a road (1-2)
 ...in a parking lot (1-2)

Getting On and Off a Bus Safely

Wait for a bus safely
 Get off a bus safely

Assessment

There are five major concepts taught in this lesson.

Students will be able to explain and demonstrate how to:

1. Walk safely in traffic
2. Recognize an edge of a street
3. Cross roads safely
4. Get out of a car safely
5. Get on and off a bus safely

Students will score 80% correct on a ten-item pre-post assessment of knowledge and attitudes about walking safety.

Teaching Materials

Whiteboard or chalk board

Dry-erase pen or chalk and eraser

Masking tape

Sidewalk chalk

And/or Felt board with felt pieces
(cars, pedestrians, etc.)

Overhead projector

Overhead transparency markers and
erase cloth

Car Activity Sheet

Pedestrian Activity Sheet

Bus Activity Sheet

Overhead: *The Edge*

Overhead: *Cross in a Straight Line*

Overhead: *Crossing at an Intersection*

Overhead: *Getting Out of a Car Safely*

Overhead: *Bus Danger Zones*

(If necessary, the overheads can also be drawn on a large
sheet of flipchart or on the whiteboard or chalk board.)

Before you begin:

On a large sheet of butcher paper draw a simple map of an intersection, large enough for students to walk on.

Or

With masking tape, frame out two streets running perpendicular with a four way intersection on the floor, large enough for two students to walk down the “street” side by side.

Or

Use sidewalk chalk and do this outside on the blacktop of the playground.

Background Information

In the United States, children aged 5 to 9 have the highest rate of pedestrian-automobile crashes of any age range in the population. The leading cause of these child pedestrian-vehicle crashes is the failure of the child to stop at the edge of the roadway and check for moving cars. This is often referred to as “darting out” into traffic. A major focus in this lesson is teaching the child to recognize an edge and to wait at the edge until they can safely check for traffic before proceeding.

Children in the kindergarten to second grade age group have generally not developed the perceptual skills to walk alone safely along a road where there is traffic. Children are themselves small and difficult to see by others and have difficulty seeing around objects. Their perception of speed and distance is still developing. Children will often misjudge situations. This curriculum recommends that children walk with adults or older children (above the age of ten) in travelled areas.

Vocabulary

Intersection – a place where two streets or pathways cross

Crosswalk – marked lines across the street that tell walkers where to cross the street

Edge – the side of the road, the end of the sidewalk, or the end of a parked car

Pedestrian – a person who travels on foot (Grades 1-2)

INTRODUCTION

Introduce yourself and the **WalkSmart Vermont!** curriculum. *WalkSmart* teaches children the importance

of walking safely in traffic. The title of the program includes the word “smart” and our emphasis to children is on thinking when you’re walking in traffic.

Ask students: What are some reasons it is good to walk to get around or go somewhere?

Solicit some ideas then review the four reasons using the poster: *Biking and Walking -Good Ways to Get Around!*

On the poster the four reasons are:

- It cuts down on pollution

- It cuts down on traffic

- It is good exercise

- It’s fun!

Learning Tasks

Please note: The lesson covers four major concepts in very limited time. In order to stay within the time limit , the lesson is structured to be interactive with guided discussion. This requires the instructor to limit student “storytelling” and anecdotes.

WALK SAFELY IN TRAFFIC

Ask students to raise their hands if they sometimes:

- walk to school

- walk home from school

- walk to the store

- walk to the library

- walk to the post office

- walk to a friend’s house

Conclude: We all get around a lot using our feet. Today I am going to teach you safety rules to follow when walking in traffic.

Use a sidewalk if it exists

Ask: Who lives on a street where there are sidewalks?
If there are sidewalks on your street, which is best, to walk on the sidewalk or walk in the street?
(The sidewalk.)

Ask: Where do you walk when there are no sidewalks?
(You walk along the edge of the road facing traffic.)

Walk facing traffic

Ask: What does it mean to walk facing traffic?
(To walk towards the traffic on the left side of the road.)

Ask: Why do we want to walk facing traffic?
(So you can be seen by a driver and you can see the driver.)

Activity to reinforce the concept of *facing traffic*:

Have children break into two lines. The person at the head of one line holds the Car Activity Sheet. The person at the head of the other line olds the Pedestrian Activity Sheet.

The car enters the street and proceeds down. The pedestrian places themselves on the same street and walks facing traffic.

After the first pair has done this successfully they pass the Activity Sheet to the next pair and you proceed through the line till all children have practiced walking facing traffic.

Dress "light" to be seen

Explain: When you are walking along roads at dusk or at night it is very hard to see you. And it is important to be seen, even if you are on a sidewalk, so as to be safe from traffic. The best way to be seen is to wear white or light-colored clothing. There are also reflective bands you can put on your arms, or you can wear a reflective jacket or shirt. You can also carry a flashlight.

Activity to reinforce the concept of *dressing to be seen*:

Ask children to look around at their own clothing and determine if it is white or light and therefore safer for nighttime walking. The instructor can show a piece or two of reflective gear.

Avoid headphone and/or iPod use

Explain: When you wear a headphone or iPod your hearing is blocked. Your hearing gives you safety information that helps you make decisions.

Ask: What important sounds might you miss? What kind of safety information could that give you?

Conclude: It is not safe to wear headphones or an iPod when walking.

CROSS ROADS AND DRIVEWAYS SAFELY

Explain: Now we are going to learn how to cross a road safely.
Raise your hand if you...
Have to cross a road to walk to school?
Have to cross a road to walk to the library?
Have ever crossed a road when a car suddenly came upon you and surprised you?
Ever chased a ball or other toy into the road?

Recognize an edge

Explain: The first thing you need to understand about crossing a road safely is the idea of an edge of a road.

Instructor places a pencil at the edge of a desk.

Ask: Where is the edge of the desk? What happens to the pencil when it goes off the edge?

Explain: When talking about crossing a road the word edge often means the curb, or the side of the road, and it is the line between being safe and being in danger.

Display the Overhead: The Edge (If necessary, this overhead can be drawn on the whiteboard or chalkboard.)

Explain: Let's look at this diagram of a road.

Ask: Which shape is in a dangerous place?
(Square)

Which shape is in a safe place?
(Triangle)

Which shape is on the edge?

(Circle)

Explain: The edge is the side of the road, the end of the sidewalk, the curb of the road, or the end of a parked car. An edge is a safe place to look for cars because you can see that they are coming, but you are still far enough away from them to be safe. There are rules to follow when you are on the edge.

Ask: If you were standing on the circle would you be safe or in danger? (Safe)
Which shape is in danger? (Square)

Explain: The edge is the side of the road, the end of the sidewalk, the curb of the road, or the end of a parked car. The edge is a safe place to look for cars because you can see cars that are coming, but are still far enough away from them to be safe. There are rules to follow when you are on the edge.

Recognize a second edge

Display the Overhead: The Edge (If preferred, this overhead can also be drawn on the whiteboard or chalkboard.)

Explain: Now let's look at the diagram again. In this diagram there are parked cars on the road. If someone was going to cross, they would need to walk out to the edge of the parked cars and stop there before crossing. That edge is called the second edge.

Ask: Where is the second edge?

Answer: At the edge of the cars.

Look Left-Right-Left

Explain: Before you cross you need to look left, look right, and look left again.

Instruct students to turn their heads to the left.

Ask: Why do we look left?

(We look left in order to see the traffic. That is the direction that cars are coming from.)

Instruct them to turn their heads to the right.

Ask: Why do we look right?

(We look right to see cars coming in the opposite direction.)

Instruct them to turn their heads to the left again.

Ask: Why do we look left again?

(We look left again because a car might be coming from that direction again.

You are looking to find the moment when the road is clear. Then you cross.)

Activity to reinforce the concept of looking Left-Right-Left:

Have students pretend to stand at the edge of the road and demonstrate looking Left, Right, Left.

Identify visual barriers

Explain: Sometimes things get in our way of seeing danger. Have you ever been at the movies and somebody sat in the seat in front of you? Those people become a visual barrier to you. When you are standing on the edge of a road, you should not leave the edge unless you can see clearly and drivers can see you. Let's name some visual barriers.

Ask: What are some objects on or near a road that make it hard to see cars coming?

(Trees, parked cars, garbage dumpsters, trucks, buses, etc.)

Ask: What do you do if you can't see cars coming?

(You move to a place with a clear view. Or you walk forward until you can see. Then you can

cross the road.)

Display the Overhead: The Edge (If preferred, this overhead can also be drawn on the whiteboard or chalkboard.)

Explain: Let's look again at this diagram. In this diagram there are parked cars on the road. Place a dime on one of the cars. This car is a visual barrier. That is why you walk to the second edge, at the edge of the car. Move the dime to the edge of the car. Now let's imagine someone is loading the car with a large piece of furniture they just bought at a store. The penny is that piece of furniture. It is a visual barrier.

Ask: When is it safe for someone to cross here?
(When they can see beyond the visual barrier.)

Point to several places someone could cross.

Cross in a straight line and continue to look

Explain: Once you look Left-Right-Left, you continue to look until the road is clear; there are no cars coming at all. Listen for the sound of car motors, car doors, sirens, and horns before you step into the road. Now you should walk in a straight line across the road. Continue to look Left-Right-Left.

Display the Overhead: Cross in a Straight Line (If preferred, this overhead can also be drawn on the whiteboard or chalkboard.)

Ask : Look at the two routes across the road. What is the shortest route and the fastest way across the road?

(Letter A- the straight line. If you walk straight across it is the shortest route and the fastest way. If you walk on the angle, Letter B, it will take longer.)

Explain: Always walk (don't run) across a road. You can't see well when you are running and you could fall. Never run into the road after a ball or other object.

Activity to reinforce how to retrieve a ball or other object that rolls into the road:

Have students pretend to stand at the edge of the road and demonstrate looking Left, Right, Left. Roll a ball into the road.

Ask: What should you do?
(Ask an adult to get the ball.)

Or

Go to the edge of the road look Left-Right-Left and make sure no cars are coming. Listen for the sound of car motors, car doors, sirens, and horns before I step into the road. Now I walk in a straight line to get the ball while continuing to look Left-Right-Left. I get the ball and return to the edge.)

Ask for student volunteers to demonstrate.

Cross safely at an intersection

Display the Overhead: Crossing at An Intersection. (If preferred, this overhead may be drawn as a picture. You may also use the area on the floor marked with tape or a felt board.)

Explain: Now we will learn about what an intersection is. An intersection is where two roads cross each other. You should use the same rules we already learned when crossing at an intersection. If

there are traffic lights you follow the rules of the light.

Review traffic light signals: green means go, red means stop, yellow means go with caution.

Explain: A cross-walk is a painted area on a road which tells you where to cross. If there is a cross-walk use the cross-walk. If there is no cross-walk, go to a corner and walk from there. Cross at corners and use crosswalks whenever possible; always stay within the lines of the crosswalk.

GET OUT OF A CAR SAFELY

Get out of a car at a school or store

Display the Overhead: Getting Out of a Car Safely (If preferred, this overhead can also be drawn on the whiteboard or chalkboard.)

Explain: When you are dropped off at school or at a store or in town, always get out on the curb side. Look at the diagram in the overhead. Point to the car by the school.

Ask: Which side should someone get out of the car?
(Curb or school/store-side.)

Ask: Where is the safest place to cross to the school/store?
(The cross-walk.)

Get out of a car on a road

Explain: When you are getting out of the car on a road, you get out curb side.
Point to the car next to the curb.

Get out of a car in a parking lot

Explain: When you are getting out of the car in a parking lot get out on the same side as the driver. Walk to the edge of the car and walk straight to your destination. Point to any of the parked cars in the overhead.

Ask: What is the safest way for a passenger to get from this car to the school/store?
(Walk along the edge of the cars, then straight across.)

Use a pencil and trace the path from one or more cars in the diagram to the school/store asking for input on the safe way to walk. Make sure students understand the importance of walking along the edge and moving from one edge to another.

Explain: Now let's think about your school. How should someone get out of the car?
Draw a diagram of the school drop-off area and discuss the how to get out of the car and to the school safely.

GET ON AND OFF A BUS SAFELY

Use the Bus Activity Sheet.

Waiting for a bus

Explain: Stay on the sidewalk or the edge until the bus arrives. Approach the bus when the driver says it is okay. Look Left-Right-Left before entering the road to board the bus. Have students practice by getting in a line at the edge of the road. One student holds the Bus Activity Sheet and pretends they are the driver of a bus pulling up in front of the line of students. The driver gives the okay and one student practices boarding the bus. When they get to the bus, they return to their seat and the next person in line boards the bus.

Getting off a bus

Display Overhead: Bus Danger Zones

- Explain: A bus is a large visual barrier that blocks the view of the pedestrian.
Point to each danger zone.
- Ask: Why is this a danger zone?
Point out how in each danger zone a pedestrian cannot see clearly and others cannot see the pedestrian.
- Ask: What should you do when you get off the bus on the same side of the street as your home?
(Get clear of the door and walk straight to the edge of the road.)
Trace this path on the overhead.
- Ask: What should you do when you get off the bus and need to cross the street?
(Step off the bus and walk five big steps toward the edge of the road, turn left and walk ten big steps past the front of the bus. Look at the driver, walk past the front of the bus and look Left, Right, Left until you cross the road.)

Have students practice. One student holds the Bus Activity Sheet and pretends they are the driver of a bus. All other students sit in the imaginary rows of seats behind the driver. The driver pulls up to a destination and stops. The driver gives the okay and students practice getting off the bus. They walk straight to the edge (five steps), left (ten steps) and then cross safely in front of the bus looking Left-Right-Left.

REVIEW AND CONCLUDE

The instructor should review with the students what was taught today:

- What is an edge?
(The side of the road)
- What are the steps for crossing a road safely?
(Cross the street with the help of an adult. Go to the edge. Look Left-Right-Left.)
- What should you do if a ball or other object rolls into the street?
(Get the help of an adult. Never follow an object into the street.)
- Should you walk facing traffic or with traffic?
(Facing traffic.)
- What color clothing should someone wear if they are walking in the evening?
(Dress "light"-white, yellow or reflective.)
- What is the safest route across a street?
(In a straight line not on an angle/diagonal.)

Certificates

Congratulate the students on learning how to walk safely and give them their Certificate of Participation.

Assessment

Each of the activities in the lesson provides the opportunity to assess student's knowledge and their ability to apply what they have learned. In addition, instructors can:

- Implement the post-test. The questions can be read aloud to the students and they can select the answer.
- Take the children to a village location if possible, where students can practice and demonstrate crossing the street, stopping at edges, and identifying dangerous locations. Teachers can use observation, instruction

and feedback to coach the students.

Family/Community Involvement

Send home the *About WalkSmart / BikeSmart Vermont!* and the *WalkSmart Vermont!* Parent-Guardian letter. It identifies the skills students have learned and asks family members to practice them with their children.

Additional Activities for Curriculum Integration

Language Arts

Write or draw a simple procedure for crossing the street safely. Have children identify the concepts outlined in the lesson.

Art

Students can draw traffic lights: Green (go), Yellow (Caution), Red (stop).

Students can make posters with a safety tip for walking and a drawing to demonstrate the tip.

Physical Education

Play an adaptation of Red Light, Green Light.

Instructor stands at the front of the room. Children line up at the opposite end of the room. Instructor yells Green, Yellow or Red and students have to walk briskly, walk cautiously or stop accordingly. Game ends when instructor is tagged, students turn and run back to starting line and instructor attempts to tag someone who becomes the next caller.

WALKSMART VERMONT!

PRE-POST QUESTIONS, GRADES 1-2

Student name: _____ Gender _____

Instructor: _____

Date of administration: _____

Choose the best answer and mark it with an X.

1. When you are walking down a road and there is a sidewalk, should you walk on the sidewalk or in the road?

a) Sidewalk _____

b) Along the road _____

2. When you are walking in a road without sidewalks, should you walk facing the cars or with the cars coming from behind you?

a) Facing the cars _____

b) With the cars behind you _____

3. When you are crossing a road, should you look Left-Right-Left or Right-Left-Right?

a) Left-Right-Left _____

b) Right-Left-Right _____

4. When you are crossing a road, should you continue to look Left-Right-Left or straight toward where you are going?

a) Look Left-Right-Left _____

b) Look straight ahead _____

5. What is the edge of a road?

a) The side of the road _____

b) The middle of the road _____

6. When you are crossing a road, do you cross in a straight line or at an angle?

a) Straight line _____

b) At an angle _____

7. When you are crossing a road and there are cars parked along the edge, where do you start crossing from?

a) Between the cars _____

b) The edge of the car _____

8. When you get out of a parked car, do you get out into the road, or toward the curb?

a) Into the road _____

b) Toward the curb _____

9. When you get off a school bus and you need to cross the road, do you cross in front of the bus or behind the bus?

a) In front of the bus _____

b) Behind the bus _____

10. What is a good reason to walk?

a) It is good exercise and fun _____ b) It cuts down on pollution _____ c) Both a and b _____

WALKSMART VERMONT!

PRE-POST QUESTIONS, GRADES 1-2 - ANSWERS

The correct answers are bolded.

1. When you are walking down a road and there is a sidewalk, should you walk on the sidewalk or in the road?

a) **Sidewalk**

b) Along the road

2. When you are walking in a road without sidewalks, should you walk facing the cars or with the cars coming from behind you?

a) **Facing the cars**

b) With the cars behind you

3. When you are crossing a road, should you look Left-Right-Left or Right-Left-Right?

a) **Left-Right-Left**

b) Right-Left-Right

4. When you are crossing a road, should you continue to look Left-Right-Left or straight toward where you are going?

a) **Look Left-Right-Left**

b) Look straight ahead

5. What is the edge of a road?

a) **The side of the road**

b) The middle of the road

6. When you are crossing a road, do you cross in a straight line or at an angle?

a) **Straight line**

b) At an angle

7. When you are crossing a road and there are cars parked along the edge, where do you start crossing from?

a) Between the cars _____

b) The edge of the car _____

8. When you get out of a parked car, do you get out into the road, or toward the curb?

a) Into the road

b) **Toward the curb**

9. When you get off a school bus and you need to cross the road, do you cross in front of the bus or behind the bus?

a) **In front of the bus**

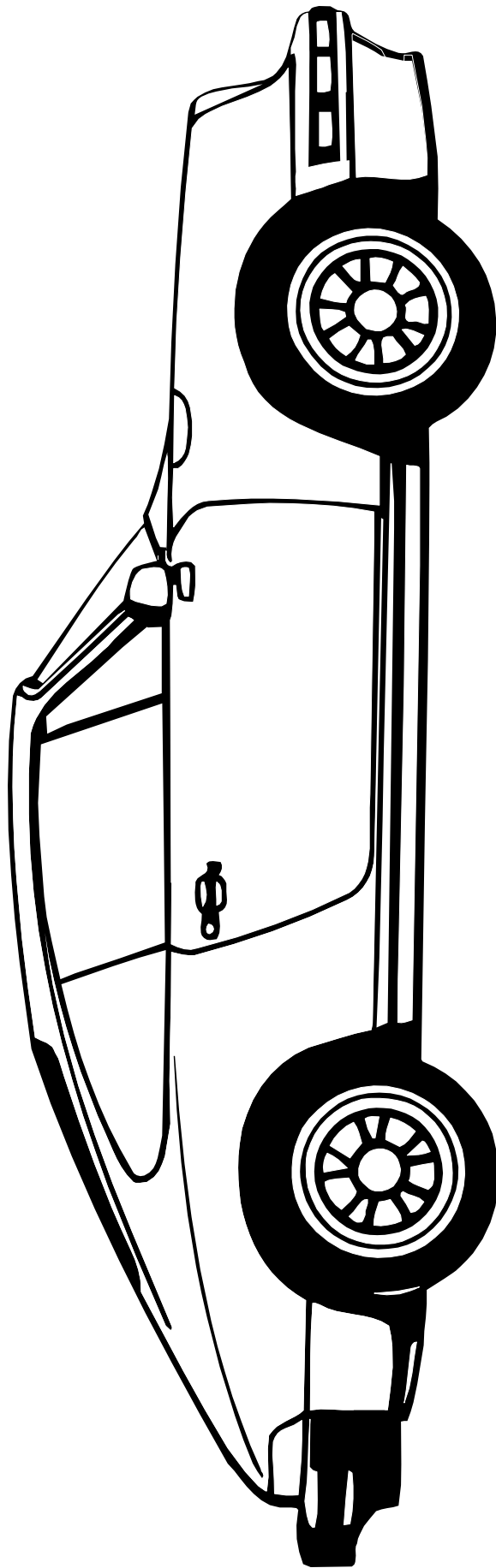
b) Behind the bus

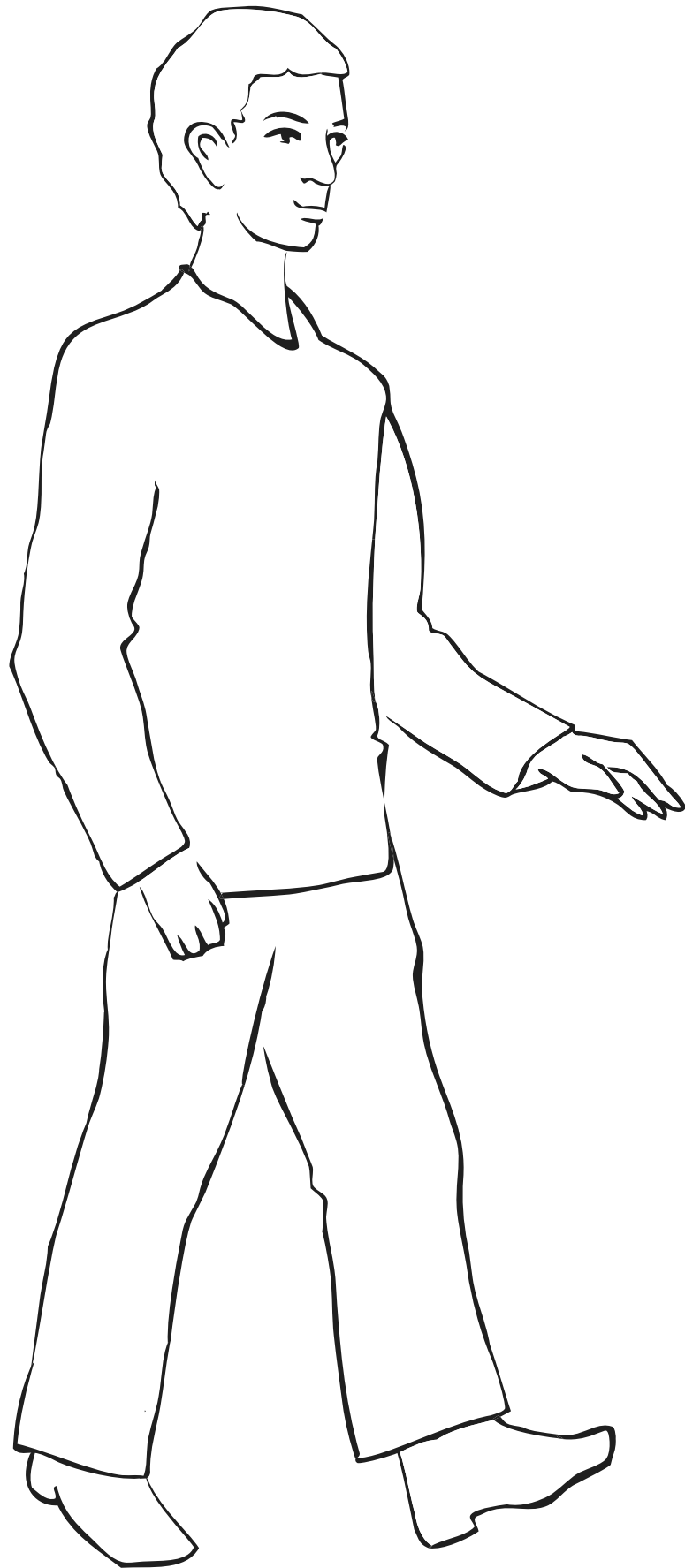
10. What is a good reason to walk?

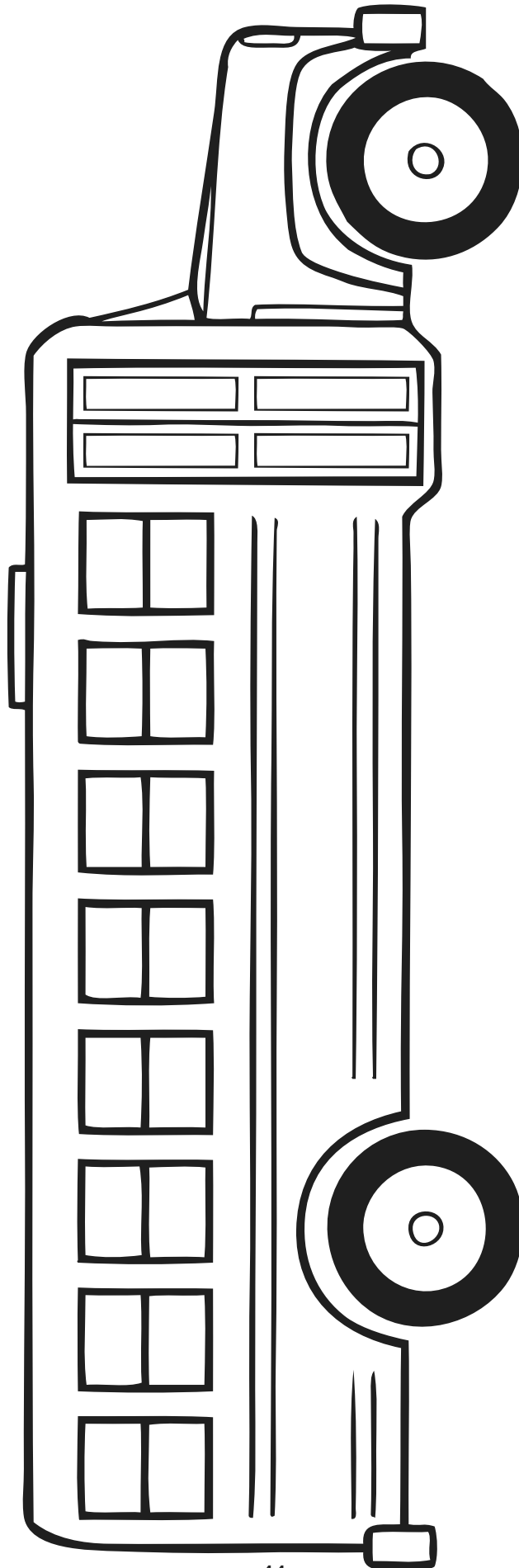
a) It is good exercise and fun

b) It cuts down on pollution

c) **Both a and b**

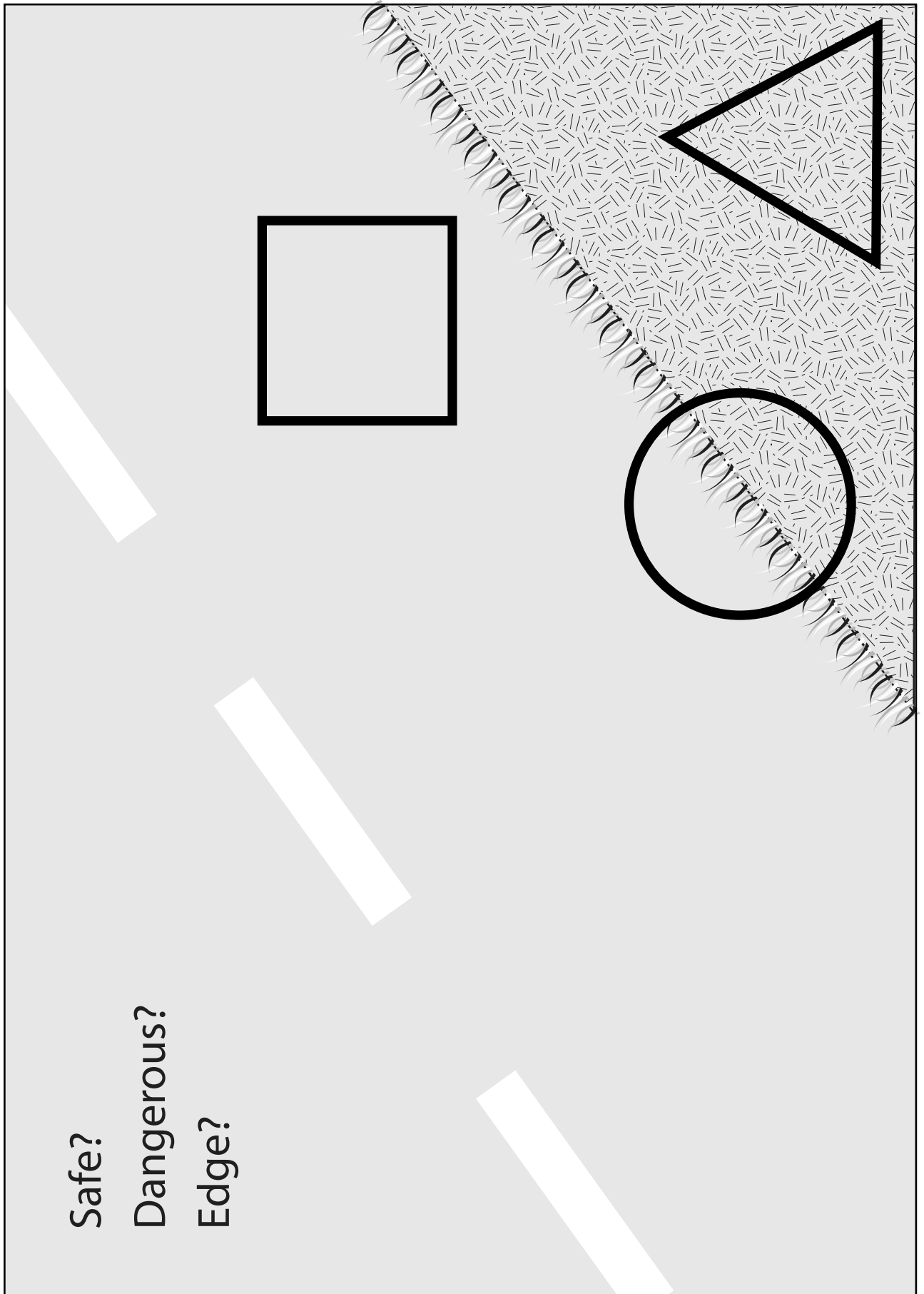




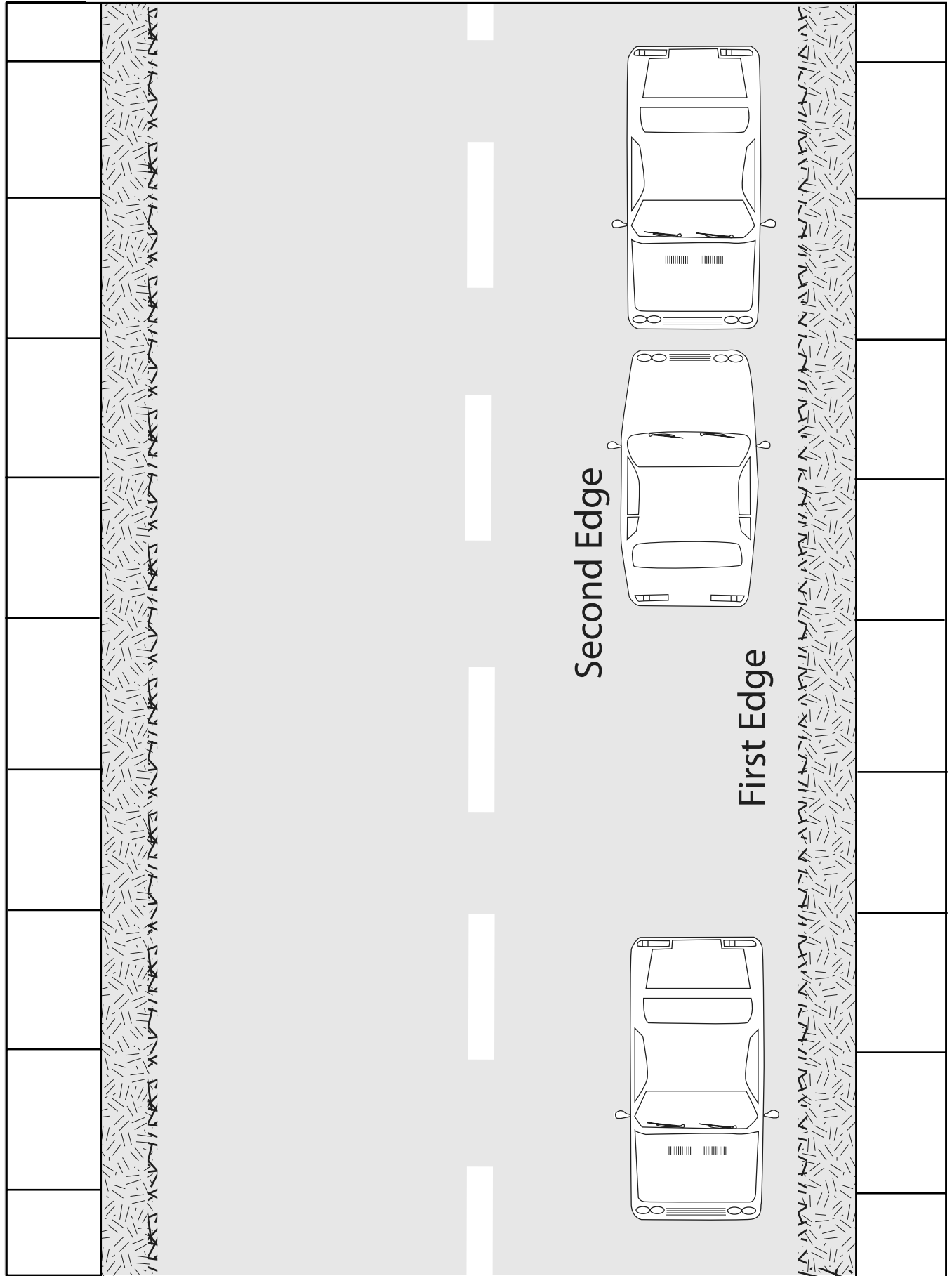


The Edge

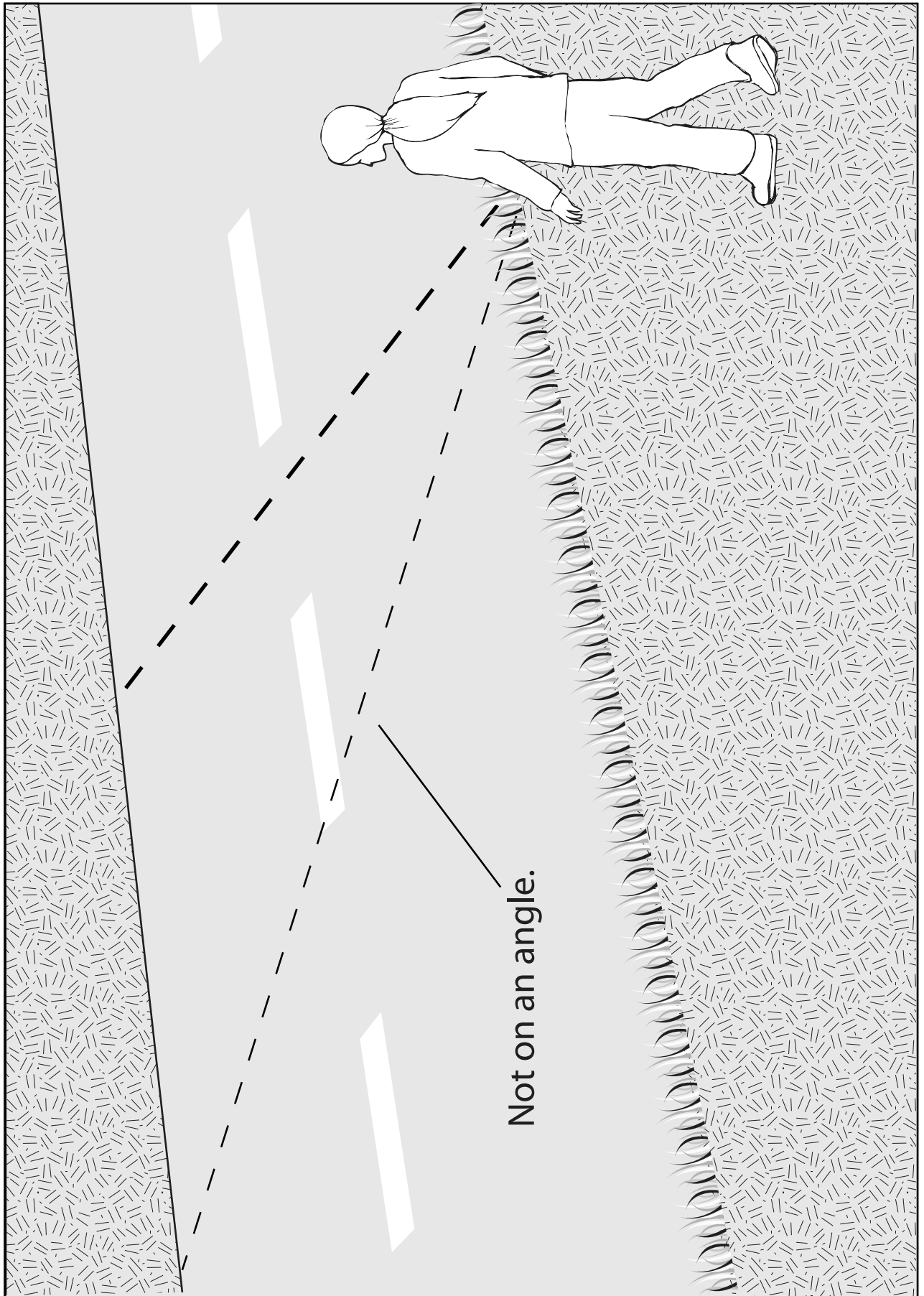
Safe?
Dangerous?
Edge?



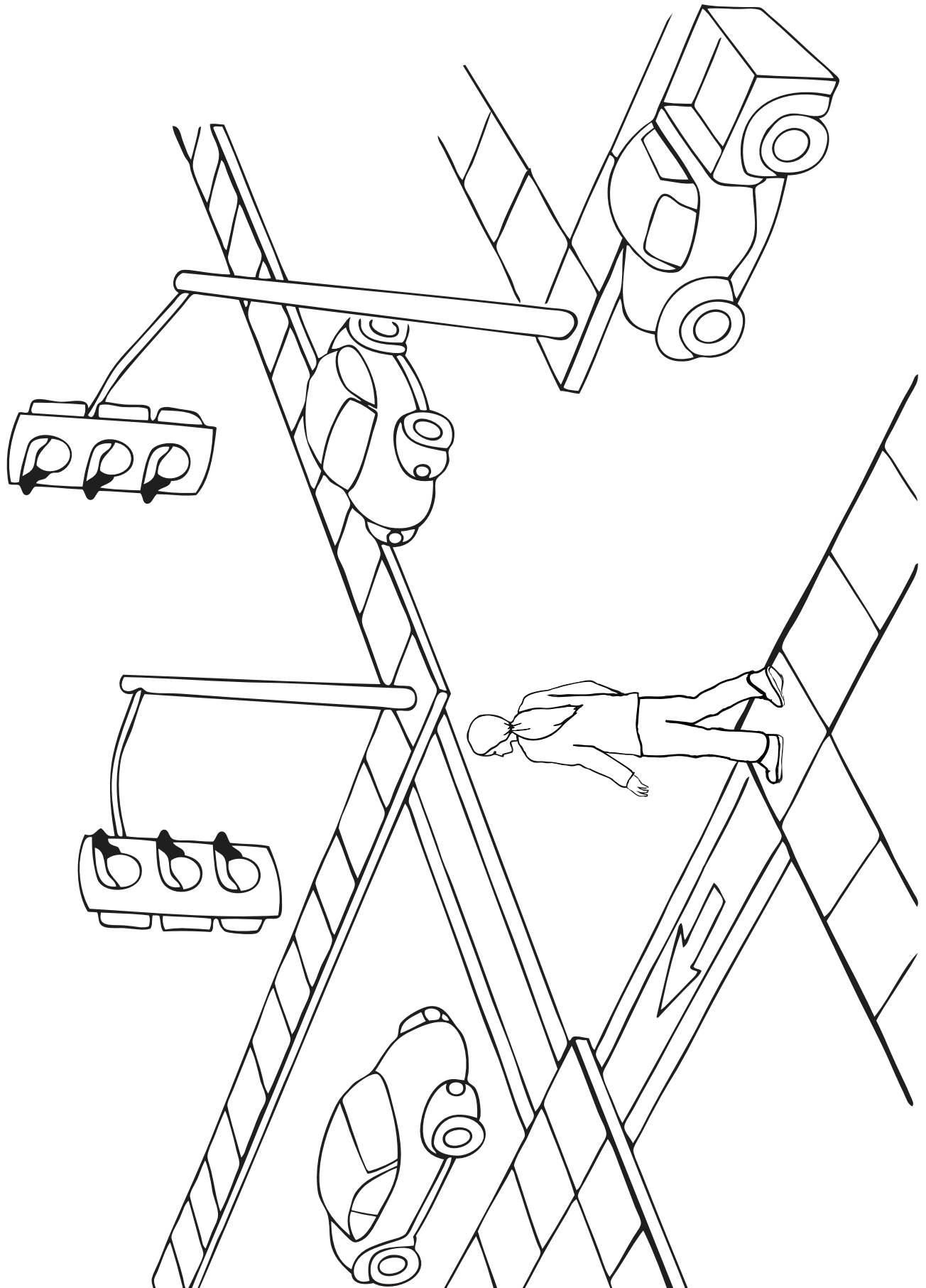
The Second Edge



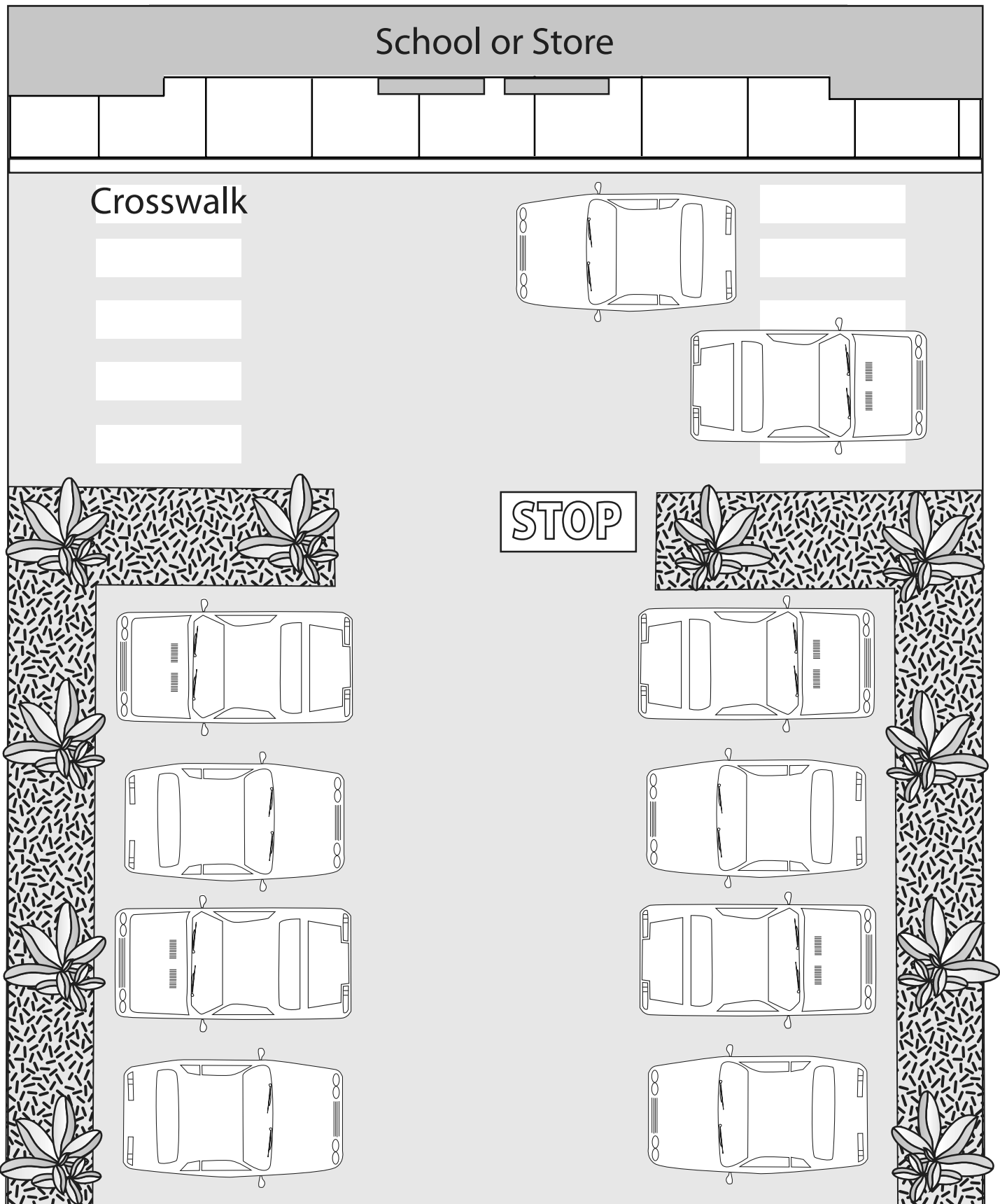
Cross In A Straight Line



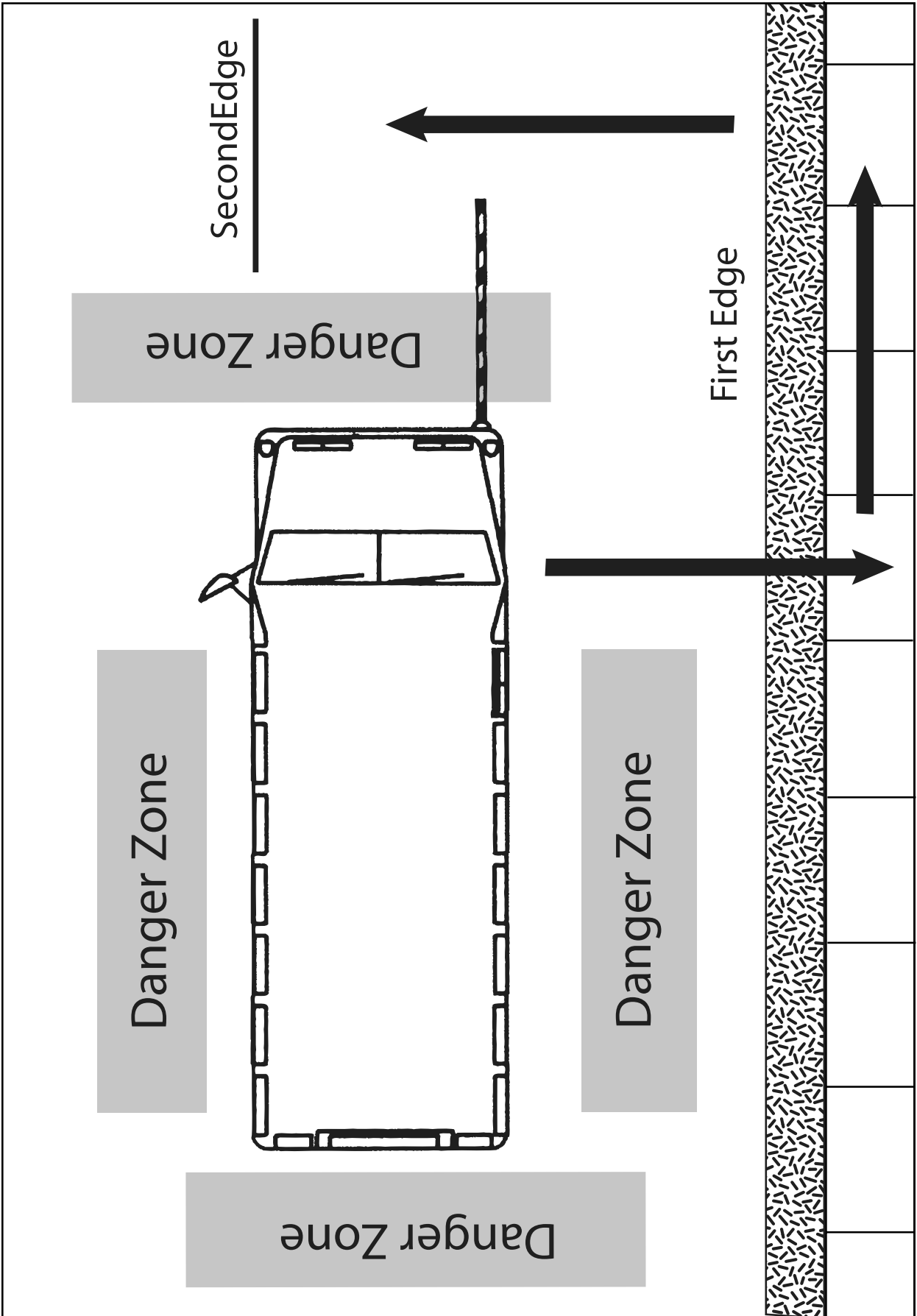
Crossing at an Intersection



Getting Out Of A Car Safely



Bus Danger Zones



WALKSMART VERMONT!

Dear Parents and Guardians,

Your child participated today in the **WalkSmart Vermont!** pedestrian safety education program. This program was developed to teach children to walk safely in traffic. In the United States, children ages 5 to 9 have the highest rate of pedestrian-automobile crashes of any age range in the population and the leading cause of these crashes is the failure of the child to stop at the edge of the roadway and check for moving cars. Your child was taught four important skills today. They are how to: Walk safely in traffic, Cross roads safely, Get out of a car safely, Get on and off a bus safely.

Please review these key points of this lesson with your child and we encourage you to practice the skills they learned with you.

Ask them whether they should walk facing cars or with cars coming from behind them.

Ask them to describe what an edge is.

Ask them which way they should look before stepping out into the road.

Remind them they should not cross a road on their own without the help of an adult until they are older.

Remind them to never run into the street after a ball or other object.

Walking to school or to a friend's house is healthy for your child, it cuts down on pollution and vehicle traffic, and is fun! We hope your child will have learned to walk safely in traffic.

Sincerely,

This program was made possible with Safe Routes to School funding from Vermont Agency of Transportation and is based on the curriculum WalkSmart / BikeSmart Vermont! © Center for Health and Learning



WALKSMART / BIKESMART VERMONT!



Certificate of Participation

This certifies that

has participated in

WALKSMART VERMONT!

This training was held on _____ at _____.

The 45-minute lesson included Walking Safely in Traffic, Crossing Roads and Driveways,
Getting Out of a Car and Getting on and Off a Bus Safely

Instructor

Date

*This program was made possible with Safe Routes to School funding from Vermont Agency of Transportation and
is based on the curriculum WalkSmart / BikeSmart Vermont! © 2007 Center for Health and Learning*

BIKESMART VERMONT!

GRADES 2-3

Time: 45 minutes

Vermont's Safe Routes to School program has set a goal to have one *BikeSmart Vermont!* lesson taught to children in grades 2-6 in spring, ideally one lesson for grades 2-3, and one lesson for grades 4-6.

Vermont Standards

- 5.5 Students make informed, healthy choices that positively affect the health, safety and well being of themselves and others.
Evidence: Students demonstrate knowledge and skills to make informed choices and decisions about biking safely.
- 3.6 Students demonstrate competency in many and proficiency in a few of the skills and concepts needed for a lifetime of physical activity.
Evidence: Students practice personal and group safety by applying rules, procedures, and practices of bicycle safety.

Key Concepts and Skills

Table 3: *BikeSmart Vermont!* Key Concepts and Skills

This table summarizes the key concepts and skills covered in the *BikeSmart Vermont!*

BIKESMART VERMONT!

Key Concepts & Skills

Helmet Safety

Know when to wear and replace a helmet
 Know how to wear a helmet
 ...Eyes-Ears-Mouth
 ...Avoid iPod or headphone use (4-6)

Dress for Safety

Dress "light and tight"
 Know how to carry loads

Bike Quick Check

Check air brakes, chain, and quick releases

Rules of the Road

Ride right
 Know rights and responsibilities as a vehicle
 Recognize road signs and use signaling
 Identify road hazards (4-6)
 Ride single file (4-6)

Assessment

There are four major concepts taught in this lesson.

Students will be able to explain and demonstrate how to:

1. Use a helmet
2. Dress for bicycle safety
3. Conduct a Bike Quick Check
4. Follow the rules of the road

Students will score better than 80% correct on a ten-item pre-post assessment of knowledge and attitudes about bike safety.

Teaching Materials

Whiteboard or chalk board

Dry-erase pen or chalk and eraser

Masking tape

Sidewalk chalk

And/or Felt board with felt pieces (cars, pedestrians, etc.)

If you plan to do the Egg Drop or Melon Drop activity to reinforce Helmet Fit, choose materials as follows...

Egg Drop: Piece of large flat cardboard (to be thrown away after Egg Drop Activity) and plastic drop cloth

Egg and box with styrofoam pieces

Melon Drop: Two ripe melons and a bicycle helmet, one fitted to the helmet

If you plan to do the demonstration for "How to carry loads" it is helpful, but not required, to have the bike rack.

The bicycle is needed for this and for the Bike Quick Check.

Bicycle with bike rack with clip or bungee cord and small backpack

Bicyclist Activity Sheet (2 copies)

Overhead projector

Overhead transparency markers and eraser cloth

Overhead/Handout: Traffic Signs (*either prepare as Overhead or copy as Handout*)

Overhead/Handout: Hand Signals (*either prepare as Overhead or copy as Handout*)

If preferred, the overheads can also be drawn on a large sheet of flipchart or on the whiteboard or chalk board.

Dented or damaged bicycle helmet (optional)

Background Information

There are 85 million bicycle riders in the United States. In 2004, about 540,000 bicyclists, which is 0.63% of the riding population, visited emergency rooms (Bicycle Helmet Safety Institute). Since up to 90% of fatal bicycle crashes are the result of head trauma *BikeSmart Vermont!* stresses the importance of always wearing a properly fitted helmet.

The *BikeSmart Vermont!* lesson also teaches bicyclists to follow the rules of the road, teaches children what to wear, how to do proper bike safety checks, and teaches about road hazards.

INTRODUCTION

Introduce yourself and the **BikeSmart Vermont!** curriculum. *BikeSmart Vermont!* teaches children bike safety. The title of the program includes the word "smart" and our emphasis to children is on thinking when you're riding in traffic.

Ask students: What are some reasons it is good to ride your bicycle to get around or go somewhere?
Solicit ideas, then review the four reasons using the poster: *Biking and Walking - Good Ways to Get Around!*

On the poster the four reasons are:

- ✓ It cuts down on pollution
- ✓ It cuts down on traffic
- ✓ It is good exercise
- ✓ It's fun!

Please note: The lesson covers these major concepts in very limited time. In order to stay within the time limit, the lesson is structured to be interactive with guided discussion. This requires the instructor to limit student anecdotes. It may be necessary to tell the students that time is limited so

you will not be able to hear their stories.

BIKING SAFELY

Ask students to raise their hands if they sometimes:

- bike for fun
- bike to school
- bike to the store
- bike to the library
- bike to the post office
- bike to a friend's house

Conclude: We can all get around a lot using our bikes. Today I am going to teach you safety rules to follow when riding in traffic. The first rule is to ***always*** wear a helmet.

HELMET SAFETY

When to wear and replace a helmet

Explain: The helmet is the most important piece of biking equipment.

Statistics: It is estimated that 75% of bicycle-related fatalities among children could be prevented with a helmet. That means that for every 100 children that are killed while riding bicycles, 75 of them could have survived if they had worn helmets. It is important to wear your helmet every time you get on your bike! "BikeSmart" means using your head while cycling ... and being smart means protecting your brains from a fall!

A helmet does not need to be expensive but it does need to be product certified by the Consumer Product Safety Commission. Helmets will have this label inside. Helmets cost about \$30 at a bike shop but you can also order them for \$8.50 through your doctors office or through a local Safe Kids Coalition.

If a helmet is dented or damaged, it needs to be replaced. The styrofoam will no longer protect your head properly.

Show students a dented or damaged helmet to demonstrate when it is time to replace a helmet.

How to wear a helmet: Proper helmet fit

Explain: A helmet needs to be fitted for each person's head. If it is hanging to the side or sliding up, it won't help you and can actually hurt you if you fall with it on improperly (e.g., by choking or incurring neck and face injuries, etc.)

Demonstrate: Adjust your own helmet by doing an Eyes, Ears, and Mouth check.

Eyes- You should see the very edge of your helmet when you look up

Ears- Straps should meet right under your ear lobes to form a V

Mouth- Strap should be loose enough so you can talk, but tight enough so you feel the helmet pull down when you open your mouth wide.

Activity to reinforce wearing a properly fitted helmet (Egg or Melon Drop):

Egg Drop Activity

Place a piece of cardboard on a table.

1. Instructor explains that the egg simulates the human brain inside the skull (important material within a fragile shell)
2. Ask a volunteer to decide how far from a hard surface s/he can drop the egg without breaking it. Let the

student drop the egg/melon from that height. The egg will break when dropped from a height of three inches.

3. Ask the student to hold another egg high and drop it into a box of styrofoam pieces. (Box should be large enough target for the student to hit.) The egg should not break.

4. Show a bicycle helmet. Explain that it is constructed with an inside crushable liner of Styrofoam, like that in the box, which protects the head.

Or

Melon Drop Activity – this needs to be done outside on asphalt or concrete

1. Instructor explains that the melon simulates the human brain inside the skull (important material within a fragile shell)

2. Drop a ripe melon from six feet onto a hard surface. It will sustain obvious damage or burst. If the melon does not burst, save it for a few days and the damage will become obvious.

3. Then, snugly strap a melon into a helmet, and drop it. The melon should still be intact.

Ask: Is it OK to ride even a short distance without a helmet?
(No)

What is an Eyes, Ears and Mouth check?

(See the edge of the helmet when you look up, straps form a Y under the ears, loose enough to breathe.)

When should you get a new helmet?

(If you have ever been in an accident or it has a dent.)

Homework Activity to reinforce wearing a properly fitted helmet (optional):

Provide students the Helmet Fit Checklist Activity Sheet. Ask them to conduct a helmet fit at home with the help of an adult.

DRESS FOR SAFETY

Light and Tight

Explain: The clothing and gear you use for biking can help or hinder your safety.
Day or evening, it is important to be seen when you are riding. The best way to be seen is to wear white or light-colored clothing. There are also reflective bands you can put on your arms, or you can wear a reflective jacket or shirt.

Activity to reinforce the concept of dressing for safety:

Ask the children to look at themselves and decide if what they are wearing qualifies as light or white.

Key points:

- Clothing should be “Light and Tight”
- Shoelaces and pant cuffs should be tucked in, not dangling, and there should be no loose strings, straps or cuffs to snag in chain
- Many bikers use bicycle gloves with fingers cut out (show a pair)
- Sunglasses protect the eyes from glare, bugs, wind and debris

How to carry loads

Ask: What can happen when you carry something in your hands when you are riding?
(You can lose your balance or get distracted.)

Explain: When you have to carry something, you should have it in a backpack or on a bike rack.
Demonstrate both: And place hands on the handlebars to show that you are free to ride safely.

BIKE QUICK CHECK

Explain: You need to check your bike every time you ride due to wear and tear.

Demonstrate:

Bike Fit- Straddle the top tube, both feet flat on the ground, there should be a three inch clearance

ABC Quick Check:

Air- Squeeze the tires to check for low air pressure

Brakes- Squeeze each brake lever. (Coaster brakes don't need to be checked.)

Does the wheel stop quickly?

Does the brake lever hit the handlebar? Make sure the brake pads are not hitting the tires.

Crank/Chain- Is the chain on track (not derailed)?

Is there anything caught in the gears?

Is either part loose?

Is the chain clean and lubed?

Quick Releases- Check the quick releases on the front and rear hub and on the seatpost to see that they are in the closed position.

Spin- Spin the wheels.

Do they spin smoothly?

Are they wobbly?

Do they have any broken spokes?

Other- (Optional) Are reflectors and lights attached, clean, working and visible?

Homework Activity to reinforce the concept of Bike Quick Check (optional):

Provide students the Bike Quick Check Activity Sheet and ask them to do a check on a bike at home with the help of an adult.

Activities to reinforce the concept of Bike Quick Check and Helmet Fit (if time allows or as a reinforcing activity later on):

Ask several volunteers to come up and do a check on the instructor's bike. If time is limited, you can have four students do the check at a time, one for each part (A,B,C, Quick).

Or

Divide the group in half. Give instructions. While half the group works with classroom teacher to check helmet fit, the other half practices ABC Quick Check using the instructor's bike, one student at a time. Student says what he/she is checking for while doing the check. This should take about 30 seconds per student.

RULES OF THE ROAD

Ride Right

Ask: Should bicyclists ride with or against traffic?

(Ride with traffic; riding against traffic is the #1 cause of bicycle-car collisions. Drivers don't expect to see vehicles in this direction and so bicyclists riding the wrong way tend to be invisible to drivers.)

Activity to reinforce the concept of Riding Right:

Use felt board with vehicle and bicycle pieces. Place a vehicle on the roadway and ask student volunteers to

place the bicycles on the right side of the road.

Or

Using masking tape, frame out a cross-section of roads on the floor. Using one copy of the Car and Bicyclist Activity Sheets, have students come up in pairs. The first student situates themselves as the driver of the car in a direction on the road. The second student situates themselves as the bicyclist "riding right."

Rights and Responsibilities as a Vehicle

Explain: Your bicycle is a vehicle and bike riders are drivers. As safe drivers, you must be responsible for knowing the rules of the road and you must follow all traffic laws.

Ask: What would happen if there were not stop signs, no stop lights, and no speed limits?
(No one would know who should go first, there would be crashes and people would get hurt, etc.)

Explain: That is why we need traffic laws. We need to understand what they are and follow them.

Road Signs

Display the Overhead: Traffic Signs (or provide as a handout) and review the signs.

Point to each sign and ask for the meaning:

Traffic Signal/Light- (Red-stop, yellow-proceed with caution, green-go)

Stop Sign- Stop and put your foot on the ground

Yield Sign- Slow down and look for traffic. Stop if a car is coming. Keep going if no car is coming.

Crosswalk Sign- Watch for people walking in front of you

Railroad Crossing Sign- Watch for trains. Be careful not to slip on the tracks. Get off the bike and walk across the tracks

Explain: There is a proper way to stop and go at stop lights, stop signs, and when entering the road from a driveway. The proper way is to look to the Left, to the Front, to the Right, and to the Left again.

Ask: Why is it important to look left twice?
(Because a car coming from the left can reach you sooner than a car on your right.)

Explain: It is important to ride single file.

Ask: If a rider ahead of you stops at a stop sign, then goes, do you have to stop, too?
(Yes. Every driver must stop and decide if it is safe to cross.)

Signals

Explain: Hand signals communicate to the drivers of other vehicles which way you plan to go. There are three important hand signals to know: turn left, turn right and stop or slow.

Display the Overhead: Hand Signals (or provide as a handout) and review the signals.

Direct students to stand up and all stand in the same direction. Instructor gets in front of the students and with back to them, calls out the hand signals several times and models the signal as students practice using them. You can tell students if you forget how to do the right turn it is OK to point in the direction you are going, "Point right."

Review and Conclude

The instructor should review with the students what was taught today:

- What safety rules do you practice when riding a bike?
(Wear a helmet, dress “light and tight”, check air in tires, brakes and chain, follow traffic rules)
- What can you do if you see a friend riding without a helmet?
(Encourage them to use one!)
- Which of the clothes you wear every day are OK for bicycling?
(Light and tight)
- If you could ask your parents for one new piece of clothing or gear that would make bicycling safer for you what would this be?
(E.g., brightly colored T shirt)
- What could you do to encourage others to practice safe behaviors as bike riders?
(Practice the safe behaviors myself, ask them if they know about safety rules, etc.)
- Why are there traffic safety signs and rules?
(In order to maintain order and prevent crashes.)
- What are some of those signs and what do they look like?
(Traffic Signals (red, yellow, green), Stop Signs, Yield Signs, Crosswalk sign, Railroad Crossing Sign)
- What are the three hand signals?
(Turn left, turn right, Stop/Slow)

Certificates

Congratulate the students on learning how to bicycle safely and give them their Certificate of Participation.

Assessment

- Each of the activities in the lesson provides the opportunity to assess student’s knowledge and their ability to apply what they have learned.
- In addition, instructors can: implement the post-test. (If time is limited or a written assessment is not required, the questions can be read aloud to the students and they can raise hands, discuss, and select the answer.)

Family/Community Involvement

- Send home the *About WalkSmart / BikeSmart Vermont!* and the *BikeSmart Vermont! Parent-Guardian letter*. It identifies the skills students have learned and asks family members to practice them with their children.
- Ask children to get the help of an adult at home to use the *Helmet Fit Checklist* and *Bike Quick Check Activity Sheets* to check their equipment. If they identify any problems with the helmet or bicycle, they could ask the adult to help them get it replaced or repaired.

Additional Activities for Curriculum Integration

Language Arts

Read the story *Curious George Rides a Bike* to the class. Have students write a letter to George giving him advice on safe bicycle riding using 2-3 concepts they learned in the lesson.

Art

Students can draw traffic signs that convey rules of the road, e.g., Traffic Signals (red, yellow, green), Stop Signs, Yield Signs, Crosswalk sign, Railroad Crossing Sign.

Students can make posters with a bike safety tip and a drawing to demonstrate the tip.

Physical Education

Provide students with bike instruction that focuses on balance, looking Left, Right, Left, and steering straight when scanning.

BIKESMART VERMONT!

PRE-POST QUESTIONS, GRADES 2-3

Student name: _____ Gender _____

Instructor: _____

Date of administration: _____

Choose the best answer and mark it with an X.

1. When should you wear a bicycle helmet?

- a) When riding in traffic _____ b) Whenever you are riding _____

2. When is it time to get a new helmet?

- a) When it is more than five years old or has been in an accident _____ b) Every year _____

3. What color clothes should you wear when riding a bike?

- a) Light _____ b) Dark _____ c) Doesn't matter _____

4. How should you carry something when riding a bike?

- a) In your left hand _____ b) In a backpack or on a rack _____

5. When you are riding a bicycle should you ride facing the cars or with the cars coming from behind you?

- a) Cars coming from behind you _____ b) Facing the cars _____

6. Should you stop at stop signs?

- a) At all times _____ b) When traffic is coming _____

7. Should you give a hand signal when making a right turn?

- a) Yes _____ b) No _____

8. Should you give a hand signal when slowing down or stopping?

- a) Yes _____ b) No _____

9. When you do the ABC-Quick Check, which should you check:

- a) Air in the tires _____ b) Chain _____ c) Both a and b _____

10. What is a good reason to ride your bike?

- a) It is good exercise and fun _____ b) It cuts down on pollution _____ c) Both a and b _____

BIKESMART VERMONT!

PRE-POST QUESTIONS, GRADES 2-3 - ANSWER SHEET

The correct answers are bolded.

1. When should you wear a bicycle helmet?

a) When riding in traffic

b) Whenever you are riding

2. When is it time to get a new helmet?

a) When it is more than five years old or has been in an accident

b) Every year

3. What color clothes should you wear when riding a bike?

a) Light

b) Dark

c) Doesn't matter

4. How should you carry something when riding a bike?

a) In your left hand

b) In a backpack or on a rack

5. When you are riding a bicycle should you ride facing the cars or with the cars coming from behind you?

a) Cars coming from behind you

b) Facing the cars

6. Should you stop at stop signs?

a) At all times

b) When traffic is coming

7. Should you give a hand signal when making a right turn?

a) Yes

b) No

8. Should you give a hand signal when slowing down or stopping?

a) Yes

b) No

9. When you do the ABC-Quick Check, which should you check:

a) Air in the tires

b) Chain

c) Both a and b

10. What is a good reason to ride your bike?

a) It is good exercise and fun ____ b) It cuts down on pollution ____ **c) Both a and b ____**

LESSON: BIKESMART VERMONT!

GRADES 4-6

Time: 45 minutes

Vermont's Safe Routes to School program has set a goal to have one *BikeSmart Vermont!* lesson taught to children in grades 2-6 in spring, ideally one lesson for grades 2-3, and one lesson for grades 4-6.

Vermont Standards

- 5.5 Students make informed, healthy choices that positively affect the health, safety and well being of themselves and others.
Evidence: Students demonstrate knowledge and skills to make informed choices and decisions about biking safely.
- 3.6 Students demonstrate competency in many and proficiency in a few of the skills and concepts needed for a lifetime of physical activity.
Evidence: Students practice personal and group safety by applying rules, procedures, and practices of bicycle safety.

Key Concepts and Skills

Table 3: *BikeSmart Vermont!* Key Concepts and Skills

This table summarizes the key concepts and skills covered in the *BikeSmart Vermont!*

BIKESMART VERMONT!

Key Concepts & Skills

Helmet Safety

Know when to wear and replace a helmet
 Know how to wear a helmet
 ...Eyes-Ears-Mouth
 ...Avoid iPod or headphone use (4-6)

Dress for Safety

Dress "light and tight"
 Know how to carry loads

Bike Quick Check

Check air brakes, chain and quick releases

Rules of the Road

Ride right
 Know rights and responsibilities as a vehicle
 Recognize road signs and use signaling
 Identify road hazards (4-6)
 Ride single file (4-6)

Assessment

There are four major concepts taught in this lesson.

Students will be able to explain and demonstrate how to:

1. Use a helmet
2. Dress for bicycle safety
3. Conduct a Bike Quick Check
4. Follow the rules of the road

Students will score better than 80% correct on a ten-item pre-post assessment of knowledge and attitudes about bike safety.

Teaching Materials

Whiteboard or chalk board

Dry-erase pen or chalk and eraser

Masking tape

Sidewalk chalk

And/or Felt board with felt pieces (cars, pedestrians, etc.)

If you plan to do the Egg Drop or Melon Drop activity to reinforce Helmet Fit, choose materials as follows...

Egg Drop: Piece of large flat cardboard (to be thrown away after Egg Drop Activity) and plastic drop cloth

Egg and box with styrofoam pieces

Melon Drop: Two ripe melons and a bicycle helmet, one fitted to the helmet

If you plan to do the demonstration for "How to carry loads" it is helpful, but not required, to have the bike rack.

The bicycle is needed for this and for the Bike Quick Check.

Bicycle with bike rack with clip or bungee cord and small backpack

Bicyclist Activity Sheet (2 copies)

Overhead projector

Overhead transparency markers and eraser cloth

Overhead/Handout: Traffic Signs (*either prepare as Overhead or copy as Handout*)

Overhead/Handout: Hand Signals (*either prepare as Overhead or copy as Handout*)

If preferred, the overheads can also be drawn on a large sheet of flipchart or on the whiteboard or chalk board.

Dented or damaged bicycle helmet (optional)

Background Information

There are 85 million bicycle riders in the United States. In 2004, about 540,000 bicyclists, which is 0.63% of the riding population, visited emergency rooms (Bicycle Helmet Safety Institute). Since up to 90% of fatal bicycle crashes are the result of head trauma *BikeSmart Vermont!* stresses the importance of always wearing a properly fitted helmet.

The *BikeSmart Vermont!* lesson also teaches bicyclists to follow the rules of the road, teaches children what to wear, how to do proper bike safety checks, and teaches about road hazards.

Vocabulary

G- force is a measure scientists use to indicate how hard one object hits another.

Hazard- an obstacle that poses a risk or a danger

INTRODUCTION

Introduce yourself and the **BikeSmart Vermont!** curriculum. *BikeSmart Vermont!* teaches children bike safety. The title of the program includes the word "smart" and our emphasis to children is on thinking when you're riding in traffic.

Ask students: What are some reasons it is good to ride your bicycle to get around or go somewhere?
Solicit ideas, then review the four reasons using the poster: *Biking and Walking -Good Ways to Get Around!*

On the poster the four reasons are:

- ✓ It cuts down on pollution
- ✓ It cuts down on traffic
- ✓ It is good exercise
- ✓ It's fun!

Please note: The lesson covers these major concepts in very limited time. In order to stay within the time limit , the lesson is structured to be interactive with guided discussion. This requires the instructor to limit student anecdotes. It may be necessary to tell the students that time is limited so you will not be able to hear their stories.

BIKING SAFELY

Ask students to raise their hands if they sometimes:

- bike for fun
- bike to school
- bike to the store
- bike to the library
- bike to the post office
- bike to a friend's house

Conclude: We can all get around a lot using our bikes. Today I am going to teach you safety rules to follow when riding in traffic. The first rule is to ***always*** wear a helmet.

HELMET SAFETY

When to wear and replace a helmet

Explain: The helmet is the most important piece of biking equipment.

Statistics: It is estimated that 75% of bicycle-related fatalities among children could be prevented with a helmet. That means that for every 100 children that are killed while riding bicycles, 75 of them could have survived if they had worn helmets. It is important to wear your helmet every time you get on your bike! "BikeSmart" means using your head while cycling ... and being smart means protecting your brains from a fall!

A helmet does not need to be expensive but it does need to be product certified by the Consumer Product Safety Commission. Helmets will have this label inside. Helmets cost about \$30 at a bike shop but you can also order them for \$8.50 through your doctors office or through a local Safe Kids Coalition.

If a helmet is dented or damaged, it needs to be replaced. The styrofoam will no longer protect your head properly.

Show students a dented or damaged helmet to demonstrate when it is time to replace a helmet.

How to wear a helmet: Proper helmet fit

Explain: A helmet needs to be fitted for each person's head. If it is hanging to the side or sliding up, it won't help you and can actually hurt you if you fall with it on improperly (e.g., by choking or incurring neck and face injuries, etc.)

Demonstrate: Adjust your own helmet by doing an Eyes, Ears, and Mouth check.

Eyes- You should see the very edge of your helmet when you look up

Ears- Straps should meet right under your ear lobes to form a V

Mouth- Strap should be loose enough so you can talk, but tight enough so you feel the helmet pull down when you open your mouth wide.

Ask: Why should a bicyclist never wear headphones or an iPod?
(Hearing will be impaired and they are not able to respond to sounds in the environment that give them information and warning signs.)

Activity to reinforce wearing a properly fitted helmet (Egg or Melon Drop):

Egg Drop Activity

Place a piece of cardboard on a table.

1. Instructor explains that the egg simulates the human brain inside the skull (important material within a fragile shell)
2. Ask a volunteer to decide how far from a hard surface s/he can drop the egg without breaking it. Let the student drop the egg/melon from that height. The egg will break when dropped from a height of three inches.
3. Ask the student to hold another egg high and drop it into a box of styrofoam pieces. (Box should be large enough target for the student to hit.) The egg should not break.
4. Show a bicycle helmet. Explain that it is constructed with an inside crushable liner of Styrofoam, like that in the box, which can reduce force to the head from 1800 g's (the measurement of force) to less than 200 g's. Note: G- force is a measure scientists use to indicate how hard one object hits another.

Or

Melon Drop Activity – this needs to be done outside on asphalt or concrete

- 1) Instructor explains that the melon simulates the human brain inside the skull (important material within a fragile shell)
- 2) Drop a ripe melon from six feet onto a hard surface. It will sustain obvious damage or burst. If the melon does not burst, save it for a few days and the damage will become obvious.
- 3) Then, snugly strap a melon into a helmet, and drop it. The melon should still be intact.

Ask: Is it OK to ride even a short distance without a helmet?

(No)

What is an Eyes, Ears and Mouth check?

(See the edge of the helmet when you look up, straps form a Y under the ears, loose enough to breathe.)

When should you get a new helmet? (If you have ever been in an accident or it has a dent.)

Homework Activity to reinforce wearing a properly fitted helmet (optional):

Provide students the Helmet Fit Checklist Activity Sheet. Ask them to conduct a helmet fit at home with the help of an adult.

Avoid iPod or headphone use

Explain: When you are riding you should not wear anything that could block sound or distract you.

Ask: Why is it important not to wear iPods or headphones when riding?

(They make it more difficult to see and hear traffic. You can get distracted and forget to pay attention to what is going on around you.)

DRESS FOR SAFETY

Light and Tight

Explain: The clothing and gear you use for biking can help or hinder your safety.

Day or evening, it is important to be seen when you are riding. The best way to be seen is to wear white or light-colored clothing. There are also reflective bands you can put on your arms, or you can wear a reflective jacket or shirt.

Activity to reinforce the concept of dressing for safety:

Ask the children to look at themselves and decide if what they are wearing qualifies as light or white.

Key points:

- Clothing should be "Light and Tight"
- Shoelaces and pant cuffs should be tucked in, not dangling, and there should be no loose strings, straps or cuffs to snag in chain
- Many bikers use bicycle gloves with fingers cut out (show a pair)
- Sunglasses protect the eyes from glare, bugs, wind and debris

How to carry loads

Ask: What can happen when you carry something in your hands when you are riding?
(You can lose your balance or get distracted.)

Explain: When you have to carry something, you should have it in a backpack or on a bike rack.
Demonstrate both: And place hands on the handlebars to show that you are free to ride safely.

BIKE QUICK CHECK

Explain: You need to check your bike every time you ride due to wear and tear.

Demonstrate:

Bike Fit- Straddle the top tube, both feet flat on the ground, there should be a three inch clearance

ABC Bike Quick Spin Check:

Air- Squeeze the tires to check for low air pressure

Brakes- Squeeze each brake lever. (Coaster brakes don't need to be checked.)

Does the wheel stop quickly?

Does the brake lever hit the handlebar? Make sure the brake pads are not hitting the tires.

Crank/Chain- Is the chain on track (not derailed)?

Is there anything caught in the gears?

Is either part loose?

Is the chain clean and lubed?

Quick Releases- Check the quick releases on the front and rear hub and on the seatpost to see that they are in the closed position.

Spin- Spin the wheels.

Do they spin smoothly?

Are they wobbly?

Do they have any broken spokes?

Other- (Optional) Are reflectors and lights attached, clean, working and visible?

Homework Activity to reinforce the concept of Bike Quick Check (optional):

Provide students the Bike Quick Check Activity Sheet and ask them to do a check on a bike at home with the help of an adult.

Activities to reinforce the concept of Bike Quick Check and Helmet Fit (if time allows or as a reinforcing activity later on):

Ask several volunteers to come up and do a check on the instructor's bike. If time is limited, you can have

four students do the check at a time, one for each part (A,B,C, Quick).

Or

Divide the group in half. Give instructions. While half the group works with classroom teacher to check helmet fit, the other half practices ABC Quick Check using the instructor's bike, one student at a time. Student says what he/she is checking for while doing the check. This should take about 30 seconds per student.

RULES OF THE ROAD

Ride Right

Ask: Should bicyclists ride with or against traffic?

(Ride with traffic; riding against traffic is the #1 cause of bicycle-car collisions. Drivers don't expect to see vehicles in this direction and so bicyclists riding the wrong way tend to be invisible to drivers.)

Activity to reinforce the concept of Riding Right:

Use felt board with vehicle and bicycle pieces. Place a vehicle on the roadway and ask student volunteers to place the bicycles on the right side of the road.

Or

Using masking tape, frame out a cross-section of roads on the floor. Using one copy of the Car and Bicyclist Activity Sheets, have students come up in pairs. The first student situates themselves as the driver of the car in a direction on the road. The second student situates themselves as the bicyclist "riding right."

Rights and Responsibilities as a Vehicle

Explain: Your bicycle is a vehicle and bike riders are drivers. As safe drivers, you must be responsible for knowing the rules of the road and you must follow all traffic laws.

Ask: What would happen if there were not stop signs, no stop lights, and no speed limits?
(No one would know who should go first, there would be crashes and people would get hurt, etc.)

Explain: That is why we need traffic laws. We need to understand what they are and follow them.

Road Signs

Display the Overhead: Traffic Signs (or provide as a handout) and review the signs.

Point to each sign and ask for the meaning:

Traffic Signal/Light- (Red-stop, yellow-proceed with caution, green-go)

Stop Sign- Stop and put your foot on the ground

Yield Sign- Slow down and look for traffic. Stop if a car is coming. Keep going if no car is coming.

Crosswalk Sign- Watch for people walking in front of you

Railroad Crossing Sign- Watch for trains. Be careful not to slip on tracks. Get off the bike and walk across the tracks

Explain: There is a proper way to stop and go at stop lights, stop signs, and when entering the road from a driveway. The proper way is to look to the Left, to the Front, to the Right, and to the Left again.

Ask: Why is it important to look left twice?
(Because a car coming from the left can reach you sooner than a car on your right.)

Explain: It is important to ride single file.

Ask: If a rider ahead of you stops at a stop sign, then goes, do you have to stop, too?
(Yes. Every driver must stop and decide if it is safe to cross.)

Signals

Explain: Hand signals communicate to the drivers of other vehicles which way you plan to go. There are three important hand signals to know: turn left, turn right and stop or slow.

Display the Overhead: Hand Signals (or provide as a handout) and review the signals.

Direct students to stand up and all stand in the same direction. Instructor gets in front of the students and with back to them, calls out the hand signals several times and models the signal as students practice using them. You can tell students if you forget how to do the right turn it is OK to point in the direction you are going, "Point right."

Road Hazards

Explain: Hazards are obstacles that cause risk or danger.

Ask:

- What are some common hazards you may face when riding a bicycle?
(Wet roads, gravel, debris, visual barriers, etc.)
- What should you do when you are trying to cross a road and can't see around a bush, some trees or a parked car?
(Get off your seat, straddle your bike, walk it to the edge of the barrier, then look Left, Right, Left again, then cross.)
- What should you do when riding on wet roads or sand, dirt, or gravel?
(Slow down! If possible, take another route.)
- What dangerous situations occur when you ride on sidewalks?
(People can walk in front of you, cars may enter or leave driveways.)
- What should you do when you are chased by a dog?
(Yell a firm "no." If this doesn't work, stop, get off the bike, keep it between you and the dog and yell for help. Report an aggressive dog once you get to safety.)

Conclude: A bicyclist must always be alert to possible danger, looking, listening and thinking about the safest way to respond to hazards.

Ride Single File

Explain: Riding single file is a safe riding practice. It is legal in Vermont to ride two abreast, but riding this way may create a hazardous situation. Drivers may not always be paying attention and come too close to the edge. Riders may be talking to one another and swerve into the road. It is best to ride single file.

REVIEW AND CONCLUDE

The instructor should review with the students what was taught today:

- What safety rules do you practice when riding a bike?
(Wear a helmet, dress "light and tight", check air in tires, brakes and chain, follow traffic rules)
- What can you do if you see a friend riding without a helmet?
(Encourage them to use one!)
- Which of the clothes you wear every day are OK for bicycling?
(Light and tight)

- If you could ask your parents for one new piece of clothing or gear that would make bicycling safer for you what would this be?
(E.g., brightly colored T shirt)
- What could you do to encourage others to practice safe behaviors as bike riders?
(Practice the safe behaviors myself, ask them if they know about safety rules, etc.)
- Why are there traffic safety signs and rules?
(In order to maintain order and prevent crashes.)
- What are some of those signs and what do they look like?
(Traffic Signals: red, yellow, green, Stop Signs, Yield Signs, Crosswalk sign, Railroad Crossing Sign)
- What are the three hand signals? (Turn left, Turn right, Stop/Slow)

Certificates

Congratulate the students on learning how to bicycle safely and give them their Certificate of Participation.

Assessment

- Each of the activities in the lesson provides the opportunity to assess student's knowledge and their ability to apply what they have learned.
- In addition, instructors can: implement the post-test. (If time is limited or a written assessment is not required, the questions can be read aloud to the students and they can raise hands, discuss, and select the answer.)

Family/Community Involvement

- Send home the *About WalkSmart / BikeSmart Vermont!* and the *BikeSmart Vermont! Parent-Guardian letter*. It identifies the skills students have learned and asks family members to practice them with their children.
- Ask children to get the help of an adult at home to use the *Helmet Fit Checklist* and *Bike Quick Check Activity Sheets* to check their equipment. If they identify any problems with the helmet or bicycle, they could ask the adult to help them get it replaced or repaired.

Additional Activities for Curriculum Integration

Language Arts

Students can write a procedure for properly fitting a bike helmet or conducting the ABC Quick Check.

Art

Students can draw traffic signs that convey rules of the road, e.g., Traffic Signals (red, yellow, green), Stop Signs, Yield Signs, Crosswalk sign, Railroad Crossing Sign.

Students can make posters with a bike safety tip and a drawing to demonstrate the tip.

Students can draw themselves on their bicycles with properly fitted helmets. They can add a tip or two on proper fit.

Students can draw a picture of a bicycle and illustrate the ABC Quick Check.

Physical Education

Provide students with bike instruction that focuses on balance, looking Left, Right, Left, and steering straight when scanning.

BIKESMART VERMONT!

PRE-POST QUESTIONS, GRADES 4-6

Student name: _____ Gender _____

Instructor: _____

Date of administration: _____

Choose the best answer and mark it with an X.

1. When should you wear a bicycle helmet?

- a) When riding in traffic _____ b) Whenever you are riding _____

2. Is it safe to wear an iPod when riding a bicycle?

- a) Yes, it is safe _____ b) No, it is not safe _____

3. When is it time to get a new helmet?

- a) When it is more than five years old or has been in an accident _____ b) Every year _____

4. What color clothes should you wear when riding a bike?

- a) Light _____ b) Dark _____ c) Doesn't matter _____

5. When you are riding a bicycle, should you ride facing the cars or with the cars coming from behind you?

- a) Cars coming from behind you _____ b) Facing the cars _____

6. Should you stop at stop signs?

- a) At all times _____ b) When no traffic is coming _____

7. Should you give a hand signal when making a right turn?

- a) Yes _____ b) No _____

8. Does "yield" mean stop or slow down and look for traffic

- a) Slow down and look for traffic _____ b) Stop _____

9. When you are riding with a friend who is also riding, is it best to ride next to the friend or single file?

- a) Next to the friend _____ b) Single file _____

10. When you do the ABC-Quick Check which should you check:

- a) Air in the tires _____ b) Chain _____ c) Both a and b _____

Bonus:

11. What is a good reason to ride your bike?

- a) It is good exercise and fun _____ b) It cuts down on pollution _____ c) Both a and b _____

HELMET FIT CHECKLIST

Name of Student: _____

Helmet size: _____

EYES

Can you see the edge of your helmet when you look up?

You have about two fingers of space between your eyebrows and the bottom of your helmet.

EARS

Do the straps meet under your ear lobes to form a V?

The front and back straps are equally tight and meet at a "V" just below your ear.

The helmet is level on your head.

MOUTH

Is the strap loose enough so you can talk, but tight enough so you feel the helmet pull down when you open your mouth wide?

The chin strap is tight when you open your mouth. There is space for one finger between the chin strap and chin when your mouth is closed.

Please note: A helmet that is dented, damaged or more than five years old should be replaced.

BIKE QUICK CHECK

1. **A is for *air pressure***

Squeeze the tires to check for low air pressure. They should be firm.

2. **B is for *brakes*.**

Squeeze each brake lever. Make sure the brake pads are not hitting the tires.

3. **C is for *chain and crank*.**

The chain should be on the track (not derailed).

Check to make sure the chain is not too loose or rusty.

Grab the crank arms (the pieces to which the pedals are attached) and try to wiggle them. They should not move.

4. **QUICK is for *Quick Releases*.**

The quick releases should be in the closed position. Check that they are tight.

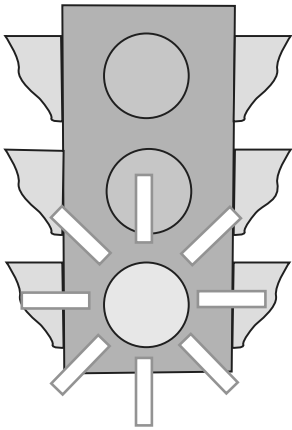
4. **SPIN is for *spinning the wheels*.**

Make sure the wheels spin smoothly, don't wobble and have no broken spokes.

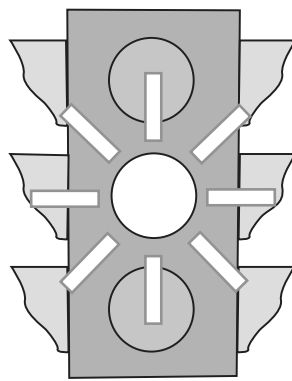
OTHER:

Check reflectors and lights. Make sure they are clean, working and visible.

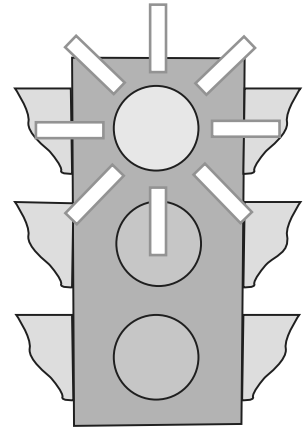
Traffic Signs



Traffic Signal - GO



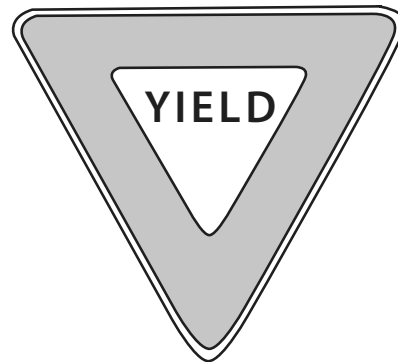
Traffic Signal - CAUTION



Traffic Signal - STOP



Stop Sign



Yield Sign

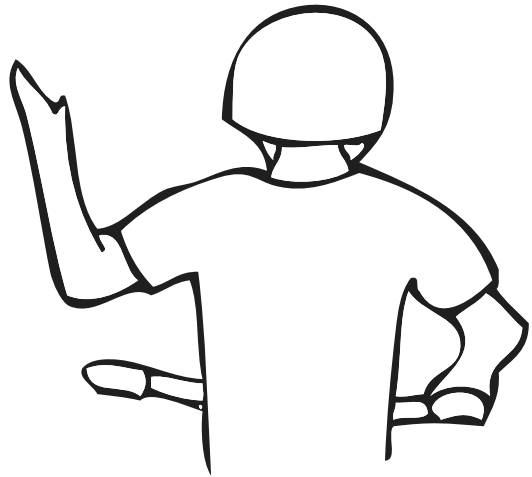


Railroad Crossing Sign

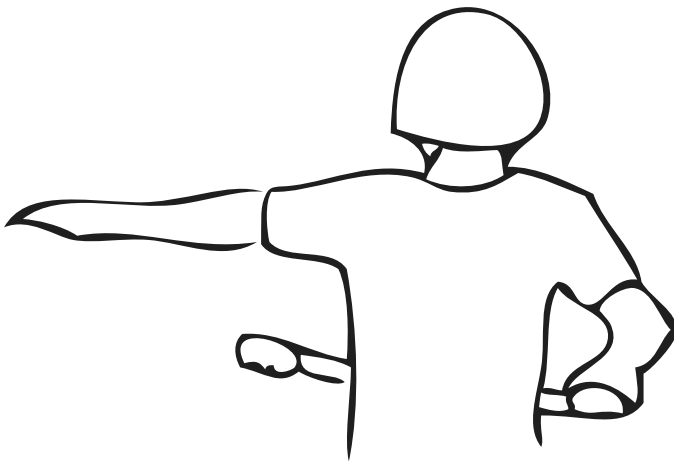


Crosswalk Sign

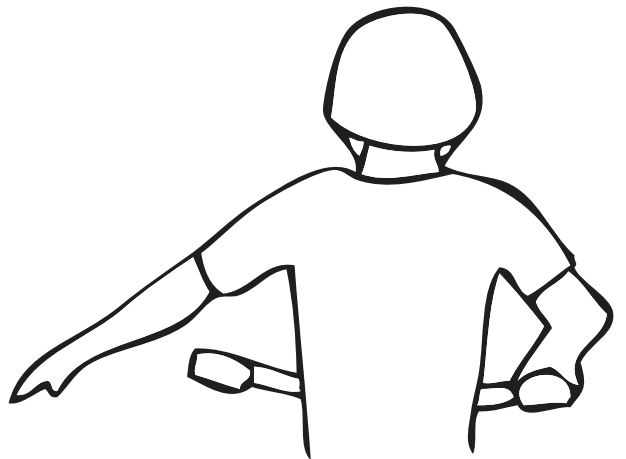
Hand Signals



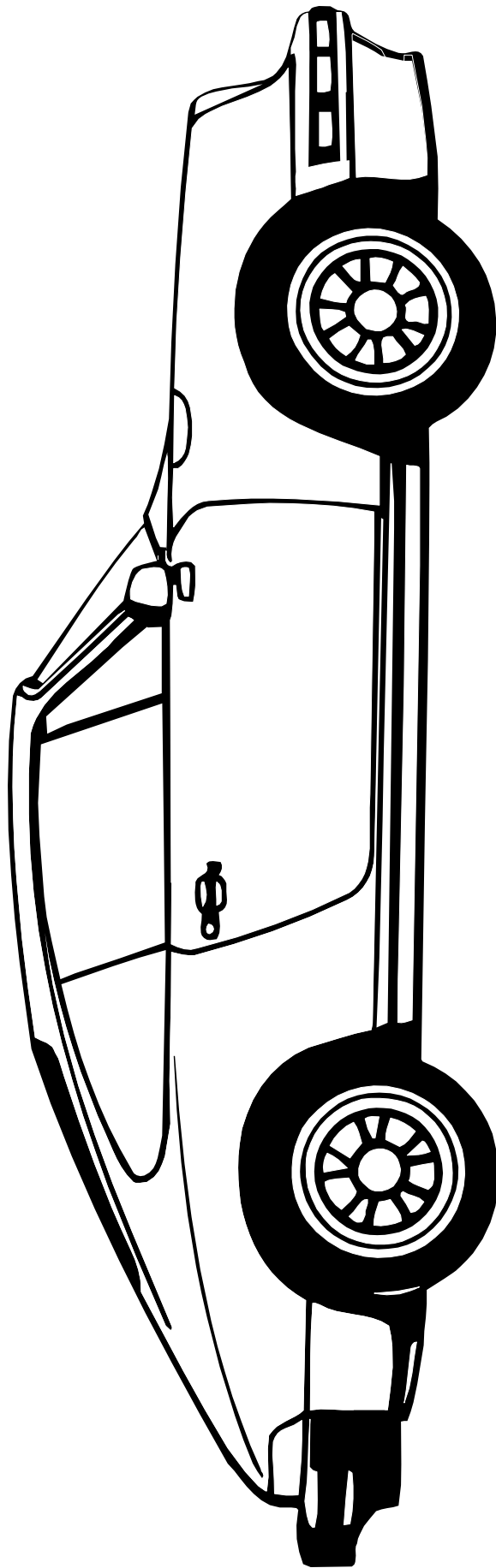
Right Turn



Left Turn



Stop or Slow





BIKESMART VERMONT!

Dear Parents and Guardians,

Your child participated today in the ***BikeSmart Vermont!*** bicycle safety education program. This program was developed to teach children bicycle safety. Today's BikeSmart lesson taught your child how to wear and fit a helmet correctly, how to dress for safety, how to do the ABC-Quick check of a bike, and how to follow basic rules of the road. BikeSmart Vermont! teaches children that a bicycle is a vehicle, and that to be a responsible driver they must follow the rules of the road. We encourage you to practice the skills they learned with you.



Ask them how they know if a helmet fits properly and when to replace a helmet.

Ask them what they should wear to be safe and seen while riding a bike.

Ask them how to do the ABC-Quick check.

Ask them whether they should ride facing traffic or with traffic.

Ask them to show you the hand signals to use while riding in traffic.

Remind them they should always stop at the end of a driveway and at stop signals before proceeding into a road.

Biking is healthy for your child, it cuts down on pollution and vehicle traffic, and is fun! We hope your child will have learned to ride a bicycle safely.

Sincerely,

This program was made possible with Safe Routes to School funding from Vermont Agency of Transportation and is based on the curriculum WalkSmart / BikeSmart Vermont! © Center for Health and Learning

WALKSMART / BIKESMART VERMONT!



Certificate of Participation

This certifies that

has participated in

BIKESMART VERMONT!

This training was held on _____ at _____.

The 45-minute lesson included Helmet Safety, What to Wear,
Bike Quick Check and Rules of the Road

Instructor

Date

*This program was made possible with Safe Routes to School funding from Vermont Agency of Transportation
and is based on the curriculum WalkSmart / BikeSmart Vermont! © 2007 Center for Health and Learning*

Appendices

WALKSMART / BIKESMART VERMONT!

Participation Record

Submit this form in fall and spring within two weeks of implementation of classroom instruction (*WalkSmart*-fall, *BikeSmart*-spring). Upon receipt of spring participation record a \$100 stipend to enhance Pedestrian and Safety activities in your classroom/s or school will be issued to your school by Center for Health and Learning.

Pedestrian and Bicycle Safety Educator: _____

Phone #: _____ Email: _____

Relationship to School: _____

School Name and Address: _____

Date form is submitted: _____

Please do one entry for each lesson taught.

Date taught: _____	School name: _____
Teacher name: _____	Grade taught: _____
Lesson taught: Check one: _____ WalkSmart	_____ BikeSmart
# minutes est. _____	# students: _____

Date taught: _____	School name: _____
Teacher name: _____	Grade taught: _____
Lesson taught: Check one: _____ WalkSmart	_____ BikeSmart
# minutes est. _____	# students: _____

Date taught: _____	School name: _____
Teacher name: _____	Grade taught: _____
Lesson taught: Check one: _____ WalkSmart	_____ BikeSmart
# minutes est. _____	# students: _____

Date taught: _____	School name: _____
Teacher name: _____	Grade taught: _____
Lesson taught: Check one: _____ WalkSmart	_____ BikeSmart
# minutes est. _____	# students: _____

Please return to:

Center for Health and Learning
28 Vernon St. Suite 319
Brattleboro, VT 05301

Info@healthandlearning.org
(802) 254-6590 tel
(802) 254-5816 fax

VERMONT PEDESTRIAN AND BICYCLE SAFETY EDUCATOR COMPETENCIES

PEDESTRIAN AND BICYCLE SAFETY EDUCATION	
Knowledge	Skills
<ul style="list-style-type: none"> • Knowledge of behavior change theories • Familiarity with Coordinated School Health and how coordinated approaches promote change • Knowledge of key concepts of pedestrian and bicycle safety, e.g. use of helmets, rules of the road • Familiarity with Vermont's pedestrian and bicycle safety education curricula: <i>WalkSmart / Bike Smart Vermont!</i> and resources • Understanding of how pedestrian and bicycle safety practices promote wellness and prevent injury • Knowledge of key national, state, community and school contacts to use as resources for training delivery. Resources noted on CHL website 	<ul style="list-style-type: none"> • States benefits and value of pedestrian and bicycle safety education • Demonstrates experience teaching children and adolescents • Links relevant health and education data and policy into presentations • Uses student pre and post test data to enhance lessons and presentations • Uses a variety of tools and resources to deliver safety education • Accurately demonstrates correct way to fit a bicycle helmet and check equipment and clothing prior to riding • Suggests ways to link pedestrian and bicycle safety education into general curriculum • Utilizes curriculum and resources developed and recommended by CHL • Recognizes areas of safety education that need expertise of other resources
LEARNING ENVIRONMENTS	
Knowledge	Skills
<ul style="list-style-type: none"> • Teaching/training methods and strategies that involve and motivate participants • Knowledge of resources for pedestrian and bicycle safety education 	<ul style="list-style-type: none"> • Creates a safe, comfortable and welcoming learning environment • Models effective communication including active listening • Actively engages children in lessons • Integrates own and learners' experiences and skills into professional content and exercises • Paces training for group's developmental needs while keeping to task and timeframe • Promotes and models appreciation of diversity, tolerance, and cultural sensitivity • Practices decision making, negotiation and conflict resolution skills when appropriate • Provides resources for participants' continued learning and skill development
PERSONAL ATTRIBUTES	
<ul style="list-style-type: none"> • Exhibits self-awareness including one's behavioral impact on others. • Projects clear positive attitudes about pedestrian and bicycle safety and experiences bicycling and walking and desire to promote their use. • Utilizes positive communication skills (e.g., use of humor, assertiveness, effective listening skills and messages that are non judgmental). • Exhibits patience and understanding in a variety of situations and seeks respectful conflict resolution • Is flexible and works collaboratively 	

WALKSMART / BIKESMART VERMONT!



About WalkSmart / BikeSmart Vermont!

WalkSmart / BikeSmart Vermont! is a pedestrian and bicycle safety education program that teaches walking and bicycling safety to children in grades K-6. Its aim is to give children the knowledge and skills to walk and bike safely in traffic.

Why Should Vermont Children Walk and Bike Smart?

While people of all ages walk and bike, children incur a disproportionate number of walking and biking injuries. These injuries can be very serious, yet they are preventable. Education in pedestrian and bicycle safety aims to address these national statistics:

Pedestrian Safety Data

- Almost one-fourth (22 %) of all children between 5-9 years old who were killed in traffic crashes in 2003 were pedestrians. (National Center for Statistics and Analysis, 2003)

Bicycle Safety Data

- Universal bicycle helmet use by children ages 4 to 15 would prevent tens of thousands of head, face and scalp injuries annually (National Highway Traffic Safety Administration, 2001).

The good news is that Vermont is a safe place for pedestrians and bicyclists! This is borne out by the following data: In Vermont in 2005, three pedestrians were killed in traffic crashes and there were no fatalities involving bicyclists. In the previous four years, an average of less than 1 cyclist and six pedestrians died in traffic crashes per year.

Walking and bicycling are safe ways for children and adults to get around and increase their fitness levels. Pedestrian and bicycle safety promotes physical activity and lifelong habits that help curtail the increasing prevalence of overweight and obesity among children and youth. It encourages activity that improves motor skills, coordination, and balance. Pedestrian and bicycle travel produces no exhaust and air pollution that can cause chronic lung problems, and it also results in less traffic congestion and contributes to an overall healthier population. In addition, it creates future drivers who are knowledgeable about traffic rules and more aware of pedestrian and bicycle safety issues.

About the Program

The program was developed by the Center for Health and Learning, a health promotion organization in Vermont and funded by the Vermont Agency of Transportation Safe Routes to School program. The goal is to provide pedestrian safety education each fall and bicycle safety education each spring to children in Vermont schools. If you have further questions, please visit www.healthandlearning.org or call (802) 254-6590. If you would like to become involved in promoting walking and biking in your school or organizing a local Bicycle Safety Fair, please contact the Vermont Bicycle/Pedestrian Coalition at www.vtbikeped.org.

WALKSMART / BIKESMART VERMONT!



Curriculum Feedback Form

Please provide feedback on the first edition of the curriculum by filling out this form and returning it to:

Center for Health and Learning

28 Vernon St. Suite 319

Brattleboro, VT 05301

Info@healthandlearning.org

Your name: _____

Email: _____ Phone: _____

Please rate on a scale of 1-5 (1=not at all, 5=very true)

A. Curriculum is user-friendly _____

B. I am able to teach key concepts and activities in a 45 minute period _____

1) Information: Identify any information in the curriculum that you would like updated. Specify section of the curriculum and page number, as well as the content that you are addressing.

2) Activities: Comment on activities in the curriculum that you think need updating. Specify the name of the activity and any suggestions and/or thoughts you have with regard to the effectiveness as a learning activity.

3) Overheads and/or Handouts: Specify the overhead and/or handout and suggest changes.

4) Curriculum at large: Comment on organization, design, implementation issues, feasibility, materials needed, etc.